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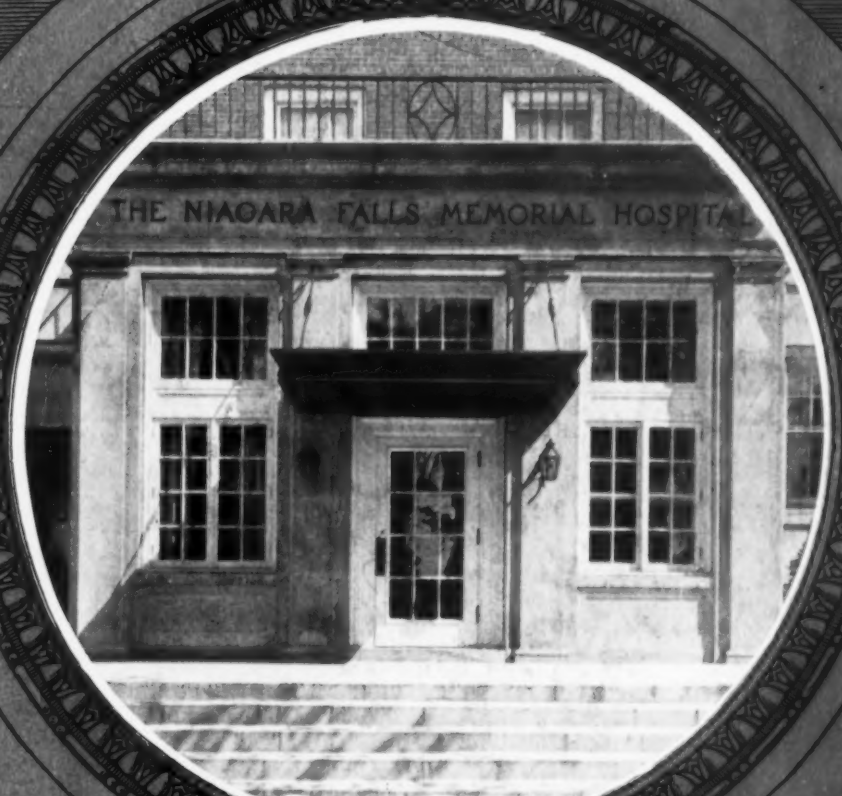

The MODERN HOSPITAL

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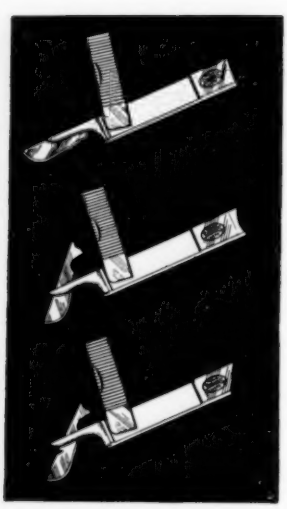

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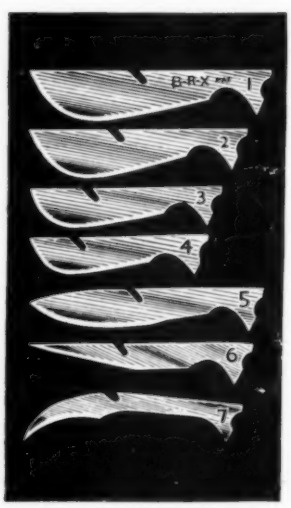

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In This Issue

If interns are not progressively trained during their stay in the hospital, then the hospital fails to get from them the best possible service. In the opening article this month Doctor Christian and Doctor Howland explain how the Peter Bent Brigham Hospital gives its interns effective postgraduate training in medicine and surgery.

Another problem of hospital management—labor turnover—is discussed by Mr. Goodfriend in an article on page 53 on changes in personnel.

In an article on page 59, Doctor Remy presents a different side of the question of the storage of x-ray films. He believes that the problem consists not in the inherent danger of the films and their storage but in the hospital's preparedness to nullify these dangers by intelligent protective devices.

The nurses' home of the City Hospital, Akron, Ohio, was planned with the intention of achieving a distinctly homelike atmosphere and avoiding all institutional touches. An attractively illustrated article describing the new building appears on page 65.

Patients at the Rockaway Beach Hospital have little cause to complain about the meals served them. Mr. Fazio and Mr. Resler, on page 77, tell of the hospital's efficient and economical arrangement for purchasing, preparing and serving food.

In an article on page 84 describing a recent fire in an Eastern hospital, a warning is issued against collecting waste material in a refuse chute that is not built according to fire regulations.

Doctor Doane makes a plea for recognition of the importance of the work done by the hospital housekeeping department and offers valuable suggestions in regard to the organization and economical functioning of this department. The article appears on page 95.

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THE MODERN HOSPITAL

A Monthly Journal Devoted to the Building, Equipment, Administration and Maintenance of Hospitals and Sanatoriums.

Vol. XXXIV *April, 1930* No. 4

The Hospital's Obligations to Its Interns

By HENRY A. CHRISTIAN, M.D.
and
JOSEPH B. HOWLAND, M.D.
Superintendent, Peter Bent Brigham Hospital, Boston

INTERNS or house officers are appointed in hospitals that patients in the hospital may receive more efficient professional care.

The hospital expects to receive diligent, courteous and intelligent service from its interns. The interns expect to receive instruction, guidance, training and experience in the professional care of patients so that the time they spend in the hospital will give them as good preparation for the practice of medicine as they may obtain in the same period of time in any other way. If interns, during their stay in the hospital, are not progressively trained in their professional work, the hospital fails to get from them the best possible service. In other words, it is equally advantageous to the hospital and to its interns for the period of internship to be a highly efficient postgraduate training in medicine or surgery.

During the internship, the hospital as a rule provides its interns with living quarters, board, laundry and white uniforms. These do not constitute any recompense to the interns, but are merely conveniences so that they may be continuously available and properly dressed for the care of patients with a minimum of lost time. Some hospitals pay their interns a money stipend. This stipend merely enlarges the hospital's choice in the selection of interns by making it possible for financially poor men to apply for jobs. Such stipends, therefore, are highly desirable. Stipends large enough to be regarded as a salary constitute the hospital's way of making up deficiencies in the training value of an internship, and usually the size of salary is in inverse ratio to the attractiveness of the service as a training place in medicine or surgery or the specialties.

The example and stimulus furnished by the chief of staff and the assistants, including the assistant residents and resident on each service, as the interns observe their management of patients, are probably the most valuable factors in the training of interns, especially if these men take time, as they should, to explain to the interns what is being done.

The detailed methods to be followed in the training of interns necessarily will vary in different hospitals, depending on such things as the type of organization, staff personnel and the length of intern service. Without doubt there are many excellent ways to accomplish the same end, no one of which may be said to be better than another. Some of these would be suitable for a given hospital, while others would not be applicable. In turn, one type of intern training is better for intern A, while intern B may develop more advantageously under another system. Familiarity with the methods of high grade hospitals in the training of interns is the desirable first step for those hospitals that are planning such training. Adapting these ideas to fit local conditions is preferable to adopting without change some one hospital plan, however well that

plan may have worked, since no two hospitals have the same organization, the same local background and the same staff personnel.

Because the plan of intern training as it is carried on at the Peter Bent Brigham Hospital, Boston, may be helpful to other hospital administrators, we are outlining here some of the features of that service. In the first place, our interns or house officers have a graded service, each step of which is regarded as a preparation for duties to follow. This work is supervised by the interns who are more advanced in service, by members of the resident staff and by the visiting physicians and surgeons. It is a straight service, either all medicine or all surgery.

How the Services Are Arranged

The services in medicine and in surgery, although similar in general character, are different in details of arrangements. Each service occupies sixteen months and is a graded progression from one type of work to another. On the medicine service, twelve months are occupied in work on the wards and the final four months are spent in the out-patient department. For the first four months the intern is occupied in laboratory work, making routine urine, blood, stool and gastric contents examinations, doing blood chemistry determinations and carrying out functional tests of various kinds. The intern learns both how to carry out the examinations and how they are utilized in connection with the patients, for he attends ward visits and hears the patients discussed.

The intern spends the second four months in medicine as junior in charge of ward patients. He takes histories, makes physical examinations, carries out special procedures in the examination and treatment of patients, participates in ward rounds and substitutes at times for his senior.

In the third period of four months, the medical intern is senior in charge of thirty patients, including a few private patients. Now he has the responsibility of the care of patients under the general supervision of more mature clinicians. Still the responsibility is a very real one, for which he has been trained by his previous duties. At the end of this period, there is a vacation of two weeks.

In the fourth period, the medical intern spends all day in the out-door department where he treats ambulatory patients. Here he is in complete charge of the patients, while a member of the visiting staff is available for consultation.

In his service the medical intern has been trained step by step to take responsibility. As senior in charge of ward patients and while he is in the out-door department he is given great responsibility for the care of patients. This responsibility, however, is always under the guidance of more mature members of the resident and visiting staff. He knows that what he does for each patient must pass muster in friendly criticism and discussion by older heads of the staff.

Ward visits, conducted by a member of the visiting staff, which occupy two hours each forenoon, give him an opportunity to check interns' histories and physical examinations and to discuss disease as related to a given patient. Medical students who serve as clinical clerks also participate in ward rounds and accentuate the instructional element in the work of the hospital.

To acquire clinical experience is important in developing the medical man. Clinical experience means the recollection of observed changes in the patient in relation to history, physical findings, the clinical course of the disease and a knowledge of what is known generally about the disease. One means to that end is to memorize the salient facts about a given patient. Our medical students and interns are trained in clinical experience by being expected to memorize the history and physical examination of patients, so that at any time on call they can give from memory the important features in the case of any patient under their care. Every morning each medical senior reports to the chief in charge of service and gives him a brief resumé of the history of each patient admitted to his wards in the past twenty-four hours, describes what has happened with regard to other patients and reports anything out of the ordinary that has happened on the wards, including any errors or mistakes on the part of any of the ward personnel. Among other advantages, this ensures that a history and physical examination record are made of every patient shortly after his admission. The data are available to the senior to guide his care of the patient since, without such data, he cannot make the morning report.

Planning the Surgical Intern's Service

On the surgical service, one of sixteen months' duration, the term is divided into five periods. The first three months are devoted chiefly to laboratory work, but the intern is given training in the operating room, especially in the selection of instruments and in handing instruments at the operating table. The second period of three months gives him the care of patients. He has a small ward to look after under the supervision of the senior intern. During half this period, he is assistant in the cystoscopic room and during the other half he gives anesthesia under supervision.

The third period of three months is one in which the intern has a free hand. He may devote himself to some one branch of surgery, engaging in research both in the hospital and medical school. At the end of three months he is given a month's vacation.

The fourth period of three months is given to the out-door department, that is, to general surgery on both male and female ambulatory patients. Here, the intern is supervised by those teaching in this department and by members of the staff.

A Progressive Training

The last period of three months is given to the senior service. The intern has charge of about fifty beds, giving half his time to the male patients and half to the female patients. He has, to assist him, the junior and subjunior interns. He is responsible for everything that goes on in his wards under the direction of the resident staff. He treats fractures under the direction of the visiting and resident staffs. He acts as first assistant at all operations upon patients from his wards and, with the assistance of the resident and visiting surgeons, performs a considerable number of major operations.

On both services, an assistant resident is assigned to each ward. He makes independent examinations of the patients, and with him the intern may confer in regard to the proper management of the patient. The resident physician and resident surgeon, too, are in touch with the patients and available at all times for advice.

All of this work of the interns on each service is a progressive training for their work of being doctors. They are learning to manage people, to meet the problems of the sick, to answer the questions of worried relatives, to communicate with physicians who have sent the patients to the hospital, to perfect their own technique in the examination of patients, to learn methods of treatment which, for surgical interns, include operative technique, to observe the effects of treatment, to study the psychology of patients and to recognize the part that varying economic conditions play in the treatment of illness. These house officers have the same relationship to a small group of private ward patients that they have to a larger group of public ward patients.

In addition to the preceding, there are certain other features of the hospital work that are largely, if not almost entirely, of an instructional character. On the medical service, there is a weekly ward visit participated in by all of the students serving as medical ward clerks, by the members of the resident medical staff and by the visiting medical staff. Here selected patients are demonstrated. A house officer (intern) presents the patient's history and summarizes the results of all observations made on the patient. The visiting physician in charge of the ward explains why the patient has been presented. The physician-in-chief conducts the subsequent discussion. Questions are asked freely. All are encouraged to make suggestions and express opinions about diagnosis and treatment. An assistant resident physician acts as recorder and makes brief notes on the discussion to be entered in the patient's history. Patients with unusual illness features or those who present unsolved problems in diagnosis and treatment are selected for such study. Usually a dozen or more patients are taken up in the two-hour period devoted to this exercise. In similar fashion once a week the surgeon-in-chief makes rounds with the entire surgical staff and discusses the more interesting and difficult cases. Both of these exercises are open to any physicians who care to attend.

Once a week the roentgenologist conducts before the entire hospital staff a clinical x-ray conference. Some of the more interesting x-ray observations of the week are selected, a house officer gives the clinical history, the roentgenologist demonstrates the films and all take part in discussing their interpretation in relation to the clinical aspects of the case. Incidentally all x-ray films remain on the wards so long as the patient is there and may be observed at any time by anyone concerned in the care of the patient. This makes of roentgenology an integral, active part of the management of patients.

A Schedule of Meetings

Autopsy permission is obtained on a large percentage of fatal cases and these postmortem examinations are attended by the staff members.

Once a week the medical staff holds an hour's meeting which is in large measure devoted to reviews and discussions of current medical literature. Each member of the staff has assigned to him a medical journal, and on stated dates he presents a review of the latest issues of this journal. Twice a month, an evening medical meeting is held at the hospital. The more formal program of scientific papers by members of the staff or invited guests is preceded by the presentation of a medical and a surgical case, the presentation being made by the intern in charge of the patient.

During their period of service, the interns, medical or surgical, have an opportunity to study special cases, to test special methods in diagnosis or treatment and to follow other forms of investigation. From this frequently grows a re-

port worthy of publication. This gives to each intern experience in the methods of investigation.

On the medical service, the duties of various members of the staff, the several procedures utilized by the hospital in the care of patients, the technique of numerous special tests, diets and methods of treatment are recorded in loose-leaf form in what is called the precedent book, to interns known as "the Bible," copies of which are easily available to all interns. This fosters uniformity and continuity in methods. There is no such precedent book on the surgical service, the surgeon-in-chief believing that by not having hard and fast rules of procedure the rule of common sense may be applied, guided by a precedent or a tradition that is passed on verbally.

Discussion among members of the resident staff is a significant part of the educational side of any hospital internship. When positions are open, as they are at the Peter Bent Brigham Hospital, to graduates of any high grade medical school, there are gathered under one roof a group of men with many differences in medical school training. Each has been guided by enthusiastic, stimulating teachers. Each probably is firmly convinced that the way he has been taught to carry out some diagnostic technique or to apply some method of treatment is the best way. He does not give up his way without a struggle. The result is discussion and trial with the result that all are stimulated to learn. No method that is not intrinsically good can long survive such discussion. As a result, methods steadily improve, and all interns are educated in the process. A resident staff, recruited from a single source, however good, loses much from the lack of discussions of this nature.

The Residents and Assistants

What the intern learns is greatly enhanced by having in the hospital assistant residents and a resident on each service. These are men who have passed through their intern service at the Peter Bent Brigham Hospital or elsewhere and are spending from one to three or four additional years in hospital work. Living in the hospital, they are available at all times for conference and for discussions. They have more time for investigation although they carry on a considerable amount of routine medical or surgical care of patients. They, with the interns, form a large family of apprentices in medicine, each learning from the other, the more mature clinically guiding the training of the less mature and all reflecting the guiding spirit of the visiting staff and chiefs of service. With interns, assistant residents and residents, there are eighteen members of the resident staff of the medical service and an equal number on the surgical service at the Peter Bent Brigham Hospital. These men are an inspiration to the incoming intern to advance in professional knowledge. Members of the visiting staff believe that this constitutes probably a greater factor in the education of interns than anything else they may contribute.

From the point of view of the administrator, this plan of organization of the house staff at the Peter Bent Brigham Hospital is satisfactory. The constant supervision of the intern's work by an experienced physician safeguards the welfare of the patient and stimulates the intern to accurate work.

The Test of the Intern's Training

There are certain hospital procedures that must be followed in order to comply with the requirements of boards of health and others that have a legal aspect. Responsibility for seeing that these details are attended to falls to the administrative staff of the hospital. The information necessary for the filling out of various forms is provided by interns. It is highly desirable that an administrative officer make daily rounds through the wards, noting, after conference with the doctor and nurses, the possible presence of reportable diseases and, through the intern, obtaining the required information for reports to health boards. Thus the intern is made familiar with his responsibility to the health officer. The same may be said of the medico-legal cases of which there are so many in most general hospitals. This constant supervision of the intern teaches him the requirements of the law and gives him a proper knowledge of how to proceed when he is "on his own" in private practice.

A number of different methods may be followed in the training of interns, no one of which is best for all hospitals. In these days when it seems that there are more positions than applicants, perhaps a satisfactory test of the success of a hospital's methods of training interns is to look back over a period of years and decide whether the quality of the men has improved or deteriorated. Many applicants select a given hospital because a colleague has recommended it to them. If there is a falling off in the number or in the quality of the applicants, there is a probability that something is wrong with the service offered. Under such circumstances a careful investigation of the routine of the intern in the various stages of his service probably would reveal the creeping in of practices not intended or approved by those responsible for organizing the intern's service.

Labor Turnover—What Will the Hospitals Do About It?

By J. GOODFRIEND
Assistant Director, Montefiore Hospital, New York City

DURING recent years the social aspects of hospital administration have assumed a major rôle, and the position of the hospital in the community as a humanitarian institution primarily, is now secure. While the other aspect of hospital administration, that is, the business aspect, is secondary to the social work of the institution, it is nevertheless of great importance to those who are charged with responsibility for administering all of the affairs of the modern hospital.

There is a growing feeling that hospitals should model their business organization on the industrial scheme. Certain aspects of the business organization of a hospital are of such a character that they can profitably, although not always accurately, be compared with organization in industry. The scale of salaries that prevails in profit making organizations as distinguished from philanthropic organizations presents a difficult subject from this point of view. Labor turnover is an important problem the hospital world will have to solve for itself, as long as it is dependent on philanthropy rather than on funds derived from the profits of business enterprise.

Let us begin by defining our terms.

Hospital labor is work performed by any member of the staff, professional or nonprofessional, full-time or part-time, paid or voluntary, directly or indirectly for the benefit of the patients or for those who serve the patients.

Labor turnover refers to the number of changes in personnel. In ordinary usage, however, it does not include volunteer workers, as it should. The definition, in order to be given its full breadth of meaning, should also take into account the quality of such changes. Mathematical calculations, expressed in absolute or in relative terms do not tell the whole story because they do not include certain justifiable and beneficial changes in the quality of the personnel. Beware of turnover statistics!

While labor turnover in hospitals is a problem that is not altogether comparable to labor turnover in industry, we can learn from industry certain fundamental methods of approach that will

The nurses' home at Montefiore Hospital, New York City.

be helpful in dealing with the problem as it affects the hospital. The method of research is one of them. The scientific point of view, which has been a valuable aid to the industrial personnel expert in his approach to the problem in industry, is applicable to hospitals as well. A review of the literature on labor turnover will show that the bibliography on the industrial aspect of the problem is plentiful, but that comparatively little thought has apparently been given to the subject, judging by the scarcity of titles dealing with the problem, as it affects the hospital.

It goes without saying that a high percentage of labor turnover in the hospital will affect the work of the institution profoundly and, in the long run, three groups will suffer—the patient, the contributing public and those who work for the patient. While changes in personnel may not always produce immediate and direct results when they occur, the cumulative effect may be such as seriously to impair efficiency.

Before proceeding with the discussion of labor turnover in the subordinate ranks of the hospital staff, a group which naturally forms the large majority, we shall consider first the importance of a stable group of executive officers and heads of departments. Speaking in terms of value, turnover in the executive staff is far more serious than turnover in the subordinate ranks, since the policy of the hospital, and particularly its interpretation, is so largely in the hands of the executive officers.

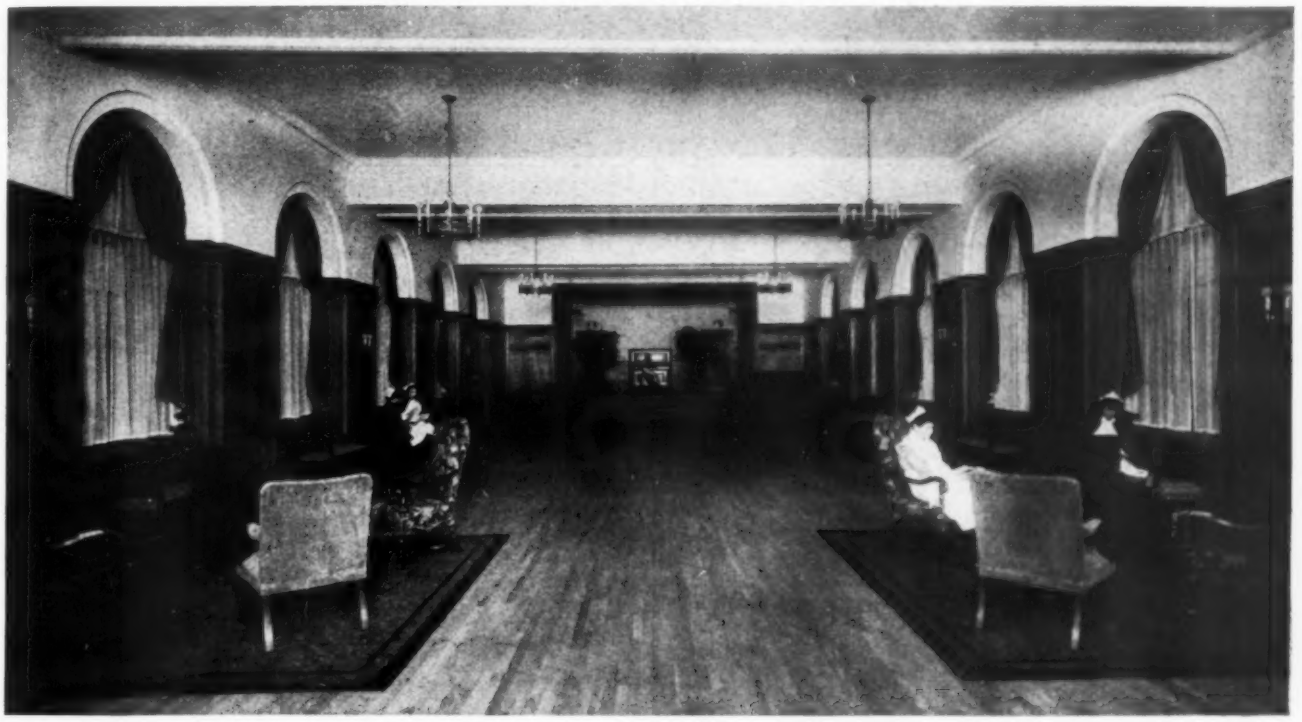
According to one writer early last year, the annual turnover of hospital administrators throughout the country for a period of two years amounted to 37 per cent. How can we expect to establish a stable personnel with an unstable executive body? An interesting contribution on this subject was made by a member of the editorial staff of *Hospital Management* who, writing in the August number of 1926, pointed out that the leading reasons for executive turnover were: the desire of the individual to improve his position as, for example, accepting an appointment in a larger hospital; interference by the trustees of the hospital; political influence, particularly in government institutions. Other reasons worth mentioning were given by the author as lack of cooperation on the part of coworkers, lack of training for the position, changes in boards of trustees, inadequate remuneration, poor or careless selection, lack of appropriations for hospital necessities and the lack of an expansion program on the part of the board.

The problem of turnover in executive positions is one that concerns the governing authorities. There is, indeed, evidence of interest in this problem on the part of such philanthropic organizations as the Rockefeller Foundation, under whose auspices there was recently published an analysis of the situation by Dr. Michael M. Davis, director of medical service, Julius Rosenwald Fund, Chicago.

Employees enjoy this well stocked hospital library.

In an article published in THE MODERN HOSPITAL, September, 1927, I argued the need for a thoroughly planned and comprehensive study of labor turnover in hospitals which would indicate,

in addition to a variety of useful information, the approximate financial loss involved and which would encourage the introduction of preventive measures. Unfortunately this kind of survey has not yet been undertaken. Hospitals still compete with each other in primitive fashion for the limited available supply of good hospital employees. We are groping in the dark in our attempts to solve the problem without the basic universal facts from which we may draw conclusions. The importance of a scientific survey which would furnish the major and minor premises on which we could base our inferences for the proper solution of this problem must be apparent. Here is an opportunity for one of the hospital or public health organizations, or some public-spirited philanthropic individual or group, to make a valuable contribution to hospital service.



These nurses are thoroughly satisfied with their spacious recreation room, equipped for dancing, concerts or plays.

Statistics that would be helpful could be compiled from replies to questions regarding:

1. Classified figures of hospital turnover throughout the country—men; women; number of married and unmarried employees; professional workers; nonprofessional workers; paid workers; volunteer workers; full-time workers; part-time workers; workers serving the patient directly; workers serving the patient indirectly. These figures should be arranged according to hospitals—voluntary (sectarian or nonsectarian); public (federal, state, municipal or military) and private (institutions established for profit on a purely business basis). These figures should show the general character of the hospital.

2. The proportion of groups of employees to patients where this figure may have a relation to turnover.

3. The minimum and maximum wage in each classification including allowance budgeted for maintenance, full and partial.

4. Relationships between the following factors on labor turnover besides those already mentioned—the size of the hospital; the location of the hospital; living quarters; food service; insurance systems for unemployment infirmity, old age and death; contract and noncontract service; nativity and color of employees; conditions of service other than salary and maintenance as, for example, vacation and sick leave allowance; frequency of salary payments.

5. The influence on turnover of centralized personnel service, of decentralized service and of employment agencies.

6. The influence of certain administrative procedures in reducing labor turnover as, for example, in the method of excluding undesirables.

7. A classified list of reasons for the resignation and discharge of employees.

8. The effect of certain practices, such as tipping and alcoholism, on labor turnover in the various groups.

9. The influence of the time clock and similar procedures on turnover.

10. The influence of organized (union) labor on hospital turnover.

There are many more questions that can be asked, but the answers to these ten should go a long way toward helping to solve the problem. If the solution is largely financial, the material could be used for presentation to the contributing public in support of the argument. Similarly, if the solution is a matter for executive consideration only the material could be used for the purposes of this group, whose interest in the problem is so vital.

As a purely local problem, certain observations have been made in Montefiore Hospital which seem to be worthy of record, and I should like to discuss each of them briefly.

The place of the employee in the scheme of organization: Employees should receive definite assignments of specific duties. The head of the department should strive to avoid misunderstandings by supplying a clear statement of duties to every new employee in his department, preferably in advance of his employment.

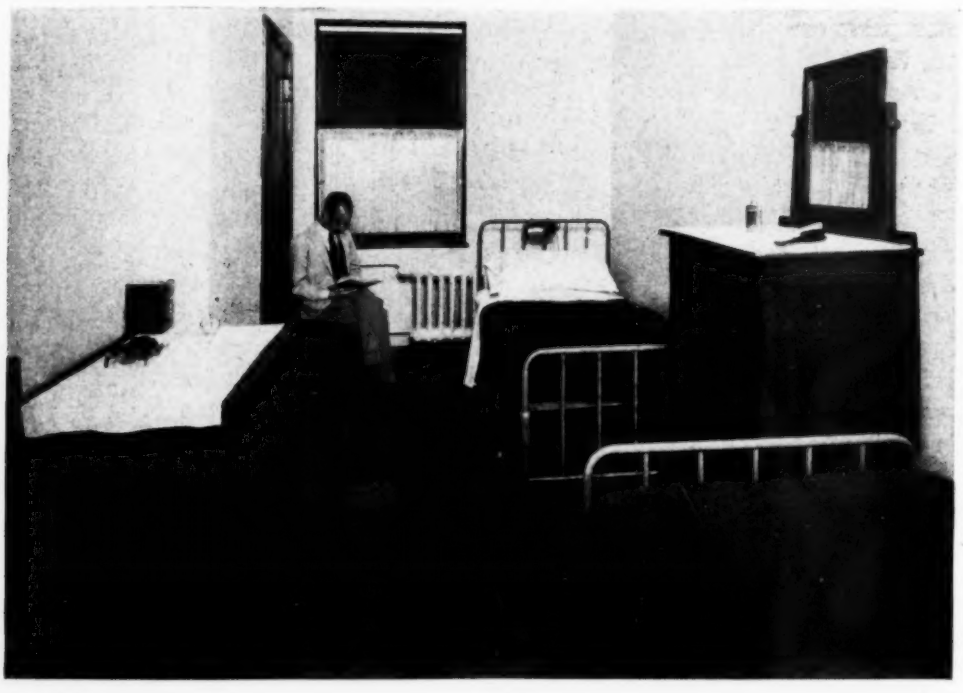
The influence of the seasons on labor turnover: In the cities, hospitals frequently lose personnel because of the lure of a freer life in the summer resorts, where a higher rate of pay prevails. Whenever there is danger of this possibility, a clear understanding should be had in advance of the employment of the worker. A study of his past performances would be of help in this connection.

Food service in hospitals: In dealing with a large group of employees it is not always possible to gratify individual tastes and appetites and some of those who are disgruntled are lost to the organization. Aside from the immediate problem of the loss of this type of employee, it must be borne in mind that he frequently exerts an unfavorable influence on others in the hospital. The commercial cafeteria idea has recently come into vogue in certain hospitals and seems to be gaining in favor as a means of solving this problem. Employees appreciate the privilege of taking their meals in the hospital but often resent being compelled to do so. Since variety in food service is an important consideration, the commercial cafeteria idea would seem to be good hospital practice.

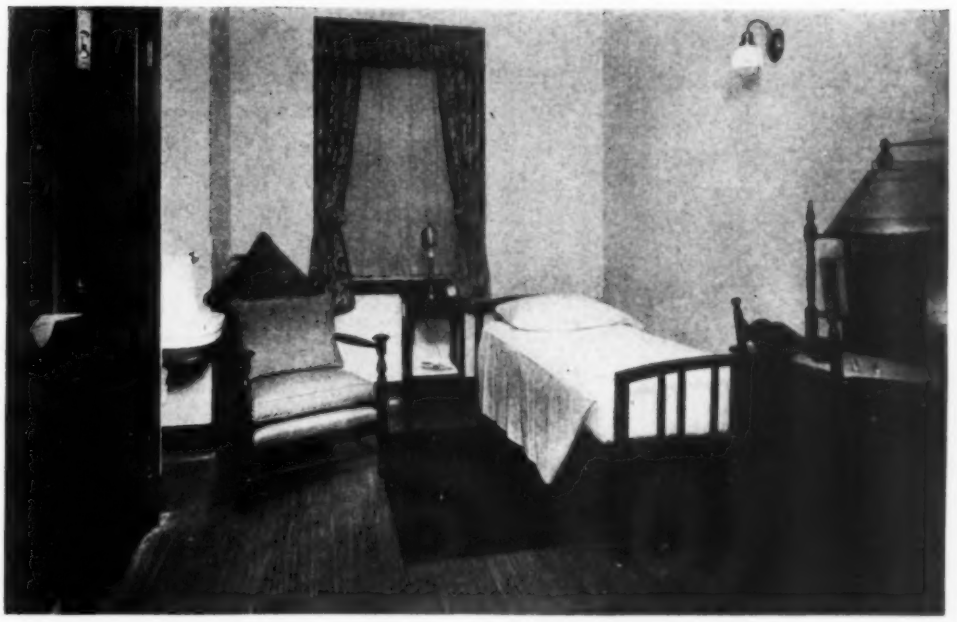
The presence of the so-called "floater" among the employees: This employee is known to every hospital administrator as an irresponsible individual. He is frequently referred to as a "transient," a "drifter" or a "floater." He accounts for a large part of the turnover of most institutions. This type of employee is an adventurer who can never reconcile himself to the routine of a position. As a rule, he is dishonest and travels from hospital to hospital in search of plunder. He may be permanently eliminated with the help of a central (hospital) employment bureau.

Scale of salaries: Hospitals as a rule show up rather poorly when compared with commercial establishments. There seems to be evidence now of a growing realization of the extent of this handicap and hospitals are drawing more on their funds to secure a better type of employee.

The influence of special privileges or labor turnover: Special concessions and privileges granted to employees in certain departments, and denied to employees in other departments who work under similar circumstances, cause bad feeling.



The quarters for men employees in Montefiore Hospital are comfortably furnished. Two interns occupy this room, which is well lighted and ventilated and is a pleasant place for leisure hours.



This room in the nurses' home, with its attractive draperies, comfortable easy chair and commodious built-in clothes closet, was planned with the needs of the occupant in mind.

Living quarters: The experience of the controller in one of the large institutions of New York City is interesting in this connection. Employees who formerly were engaged with full maintenance and who, for various reasons, desired to live outside of the hospital, were granted a reasonable allowance for living quarters and also for meals if they preferred to take them outside of the hospital. The turnover of orderlies was reduced in this manner to less than 10 per cent per month, a record any hospital may envy in the face of a condition in which the orderly turnover is generally much greater. Incidentally, while we are discussing the orderly problem, I should like to mention that a recent survey of ten of the leading hospitals in New York City made by the Hospital Information and Service Bureau of New York shows the average wage for orderlies receiving full maintenance to be $55.75 per month, a salary that does not seem to be adequate for a person who is as close to the patient as is this type of employee.

Resignations out of sympathy for discharged employees: This is a common phenomenon especially if employees have become close friends during their stay in the hospital. It is the most important reason why hospital executives decline to engage married couples.

Concerning the cost of turnover, it may be emphasized that this problem would be comparatively simple if it were merely a matter of computing labor turnover in terms of dollars and cents. Let us take for example a hospital employing twenty waiters at a salary of $100 a month without maintenance. If the turnover among these employees averages 30 per cent a month, it represents a turnover of 360 per cent a year. If it takes roughly half a week for a new man to learn the duties of his position, the loss in figures would be somewhat as follows: number of new waiters employed, 72; loss in time for training these waiters, 36 weeks; loss in money (approximate), $900.

But this does not tell the whole story. There is breakage of dining room equipment due to unskilled handling, loss of time in making adjustments, loss of efficiency in constant changes which require closer supervision, not to mention the overhead expense in making these changes and the demoralization that follows in their train, since there is a certain amount of resulting damage to the morale of the staff and the people whom they serve. In the end a vicious circle is established and the entire question takes its place as one of the most serious problems in hospital administration. Another serious aspect of this matter is the loss which the hospital suffers when a patient or employee leaves with a grievance. Hospitals depend in a large measure on the good will of the community for support. A high labor turnover gives the hospital a reputation for mismanagement.

Every employee who resigns or who is discharged from any of the departments of the hospital should be interviewed by a member of the executive staff to ascertain his point of view and to discover new facts about the position he filled. This should be done without damage to the feelings of the head of the department. Accurate records should be kept for present and future reference and an effort should be made to improve conditions when they are found to be unsatisfactory. In the industries this procedure is known as the "exit interview" and is a recog-

nized method of dealing with the problem of labor turnover.

Care in selection cannot be emphasized too strongly. We cannot always blame an employee for unsatisfactory service since members of the executive staff are so largely responsible for his classification and assignment. A square peg in a round hole will soon enough become obvious and the turnover figures will indicate this condition. A man may be an excellent supervising engineer or a woman may be an excellent executive nurse, but unless the two are able to judge human nature as it manifests itself in applicants for appointment, the efficiency of their departments will suffer.

It would be well for the president of the hospital to appoint a committee from among the members of the board of trustees to keep an eye on the welfare of its employees. Such a committee, which is best composed of business men who have wide familiarity with the problem, could receive reports on labor turnover periodically from the director of the hospital. Personnel charts, showing the employment situation and wage information, together with any other pertinent information concerning the welfare of employees should be available to this committee for

_____Hospital

RECORD OF LABOR TURNOVER FOR THE MONTH OF

_____, 1930

_____
Department

1. Average number of employees on the pay roll during the month .....
   (a) Number at the beginning of the month ...
   (b) Number at the end of the month .....
2. Number of resignations during the month .....
3. Number of discharges during the month .....
4. Number engaged during the month .....

Remarks: (Note here any special features affecting your figures for the month.)

_____
Department Head

Fig. 1.

study. A committee of this kind could look into the housing and other conditions under which the staff serves the institution. A program of social activity could be organized under the final jurisdiction of such a committee.

Simple and accurate methods of recording turnover are essential in every organization. Simple standard terminology should be adopted in order to avoid confusion. The form shown in Fig. 1 is suggested for this purpose.

With this form for every department as a basis, the administration could prepare mathematical calculations of labor turnover, which could then be submitted to department heads for study on the form suggested by Fig. 2.

In submitting the form shown in Fig. 2, I repeat once more that turnover percentages are often deceptive if they are not carefully analyzed.

_____Hospital

COMPARATIVE RECORD OF LABOR TURNOVER

Departments

	A	*B*	*C*	*D*	*E*	*F*	*G*
1. Terminations:							
(a) Resigned							
(b) Discharged ..							
(c) Total							
2. Engagements:							

(Above figures, prepared by the office, should be in percentages.)

_____
Personnel Officer

Fig. 2.

For example, a 100 per cent turnover might be claimed for each of the following conditions: a force of sixty men replaced at the rate of five a month over a period of twelve months; the entire force of sixty men discharged on the last day of the year, ending the year without any men employed; many varieties of combinations between these extremes that would give the same figure.

This article started with a plea for deeper study of this problem along broader lines. Accepting the seriousness of the situation, it is recommended further that the hospitals of every city unite for the purpose of establishing a central reference bureau or clearing house for all nontechnical (nonprofessional) hospital employees. A great deal of good could be accomplished by such an organization. The most obvious and the most immediate advantage would be the weeding out of certain types of employees.

The Preference for the High School Graduate as a Nurse

That more hospitals are making a four-year high school course a requirement for entrance to their nurse training schools is reported in the *Trained Nurse and Hospital Review*.

The University of the State of New York, through a ruling of the board of regents in that state, has decided to bring the entrance requirements up to four years of high school for nurses entering training.

In Iowa, 77⅝ per cent of the young women who entered schools of nursing in 1926 were high school graduates. In 1927 this number had increased to 89½ per cent, in 1928 to 92 4-5 per cent and in 1929 it was over 94 per cent.

Moral and Physical Aspects of the X-Ray Film Storage Problem*

By CHARLES E. REMY, M.D.
Formerly Superintendent, Montefiore Hospital, Pittsburgh

THE problem of film storage, as related to hospitals and clinics and to the modern roentgenology department, presents three phases to the hospital executive. There is first the moral aspect—the reasons for storing films and the wherefore of their retention after their first purpose as an aid to diagnosis has been served. Then there is, secondly, the physical problem of their storage. Third, there is the matter of the fire hazard attendant on the storage of these films.

The moral aspect of the question may be divided three ways: (1) the medicolegal responsibility of the hospital or clinic; (2) the professional responsibility for maintaining a file of all records intact, and (3) the scientific responsibility, that is, the responsibility of accumulating a scientific film library, a museum of x-ray data.

What the State Holds

The medicolegal aspects of the problem may, I believe, be disposed of with few words. It is a matter of individual state law as far as calendar period is concerned. But the moral aspect is the same in all states, namely, a compliance with regulations that the state has seen fit to establish for the protection of the rights of its citizens. For the period thus fixed, the state has said that its institutions and medical practitioners shall be held responsible for the retention of x-ray films for the protection and support of citizens in the event of the development of legal controversies relating directly or indirectly to the accident or to diseased conditions for which the x-ray film was utilized as diagnostic evidence. The state does not hold that in legal controversies the written interpretation, even of an expert roentgenologist, is of equal weight with submission of the film in evidence; hence, the law fixing medicolegal responsibility for retention of x-ray films. The sole fact that concerns the hospital superintendent is that a definite period of medicolegal responsibility has been determined by the lawmakers of his state. The law is not niggardly in fixing such periods of responsibility and the superintendent need have no qualms of conscience about moral responsibility to the hospital's clients for retaining films longer than the legally specified time in any particular state.

It has been my observation that in both outpatient and in-patient departments after the elapse of even a year, the physician, in studying the patient's past history in relation to his present complaints, depends almost exclusively upon the report of the roentgenologist rather than upon the film and its interpretation. The physician may delude himself into thinking that because of his interest in his patients and in the clinic's patients he will refer to the original film if he is called to care for that patient in the clinic two, three or six years later, but the superintendent should not permit himself to be similarly deluded. Such delusions do not cost the physician anything, but the superintendent must remember that such fantasies will cost his hospital money that might well have been used elsewhere for new equipment, added supplies or greatly needed additional personnel.

Keeping the file of x-ray films unbroken and intact has become a sort of fetish with many hospital superintendents. Some hospital boards have gone so far as to consider that anyone who questions the policy is almost sacrilegious.

Many Films May Be Destroyed

The idea that all films should be filed and kept indefinitely did not originate in any department of roentgenology, and the child is an adopted one as far as hospital boards and superintendents are concerned. It was conceived and nurtured in the bosom of the attending medical staff. The average roentgenologist looks askance at it and questions its legitimacy, but it has been adopted by superintendents and hospital boards on the recommendation of the medical staff. Hospital boards are generally composed of laymen. In the past the same has been true of hospital superintendents. They did not know just why all films should be kept forever, but out of pure loyalty to a group of men whose idiosyncrasies they never could fully understand, they accepted the dogma of saving films as somehow inseparable

*Read at the joint meeting of the Illinois, Wisconsin and Indiana Associations, Chicago, February 19-21.

from the religion of saving lives. It must be conceded that some of the most capable executives in the hospital field, medical as well as non-medical, cherish the thought as an ideal. I do not know why this is so. Men rarely analyze their ideals or their religious faiths. I am reminded of the antique hunter who, shown the most decrepit old table or chair requires only to be informed that it is a genuine antique, and it becomes enveloped by a halo.

Any roentgenologist, if asked for an opinion, will state frankly that 95 per cent of the films developed in any x-ray laboratory are but repetitions of thousands of other films that have been made of the same portion of the human body, representing the identical phase of the same disease process. Probably he will emphasize his reply by stating that even one unusual film worthy of filing in a group of a hundred films developed would be a high average. Why file the other ninety-nine unimportant films? What medical man would buy bookcases in order that he might file a hundred or a thousand medical journals, each containing the same and only one article of interest? No physician living would do it, even if he was the author of the article. Yet this is what the physician, the medical staff and the medical profession are asking the hospital to do.

How to Help the Staff

The medical staff is sincere in its belief that some day it will have the time to study these thousands of old x-ray films; the individual staff member is sincere in the same belief; a boy is sincere when at seven or eight years of age he plans at maturity to travel the "roaring main" and be a "pirate bold." Too paternalistic an attitude toward the staff on the part of the hospital superintendent and the board of directors is probably reprehensible, but nevertheless it is well that the superintendent and the board bear in mind that these men, by the very nature of their professional inheritance, are to a certain extent visionaries. Every superintendent and every hospital board should have the professional advancement of the members of the medical staff close at heart, but if such advancement relates to the filing of x-ray films, it is not to be furthered by developing an absolutely unwieldy mass of useless material inaccessible by the very fact of its tremendous volume.

It is far better to foresee the staff member's inertia under the given condition and make accessible to him a thoroughly indexed bulk of films, each of which has a valuable message to transmit. As a result more and better papers will be written by members of the staff than if all the x-ray films of all the hospitals in the world were piled in a pyramid in the hospital's back yard. The surest way in the world to prevent an institution's ever being brought into the limelight through the medium of the brilliant literary efforts of its staff would seem to me to be by the accumulation of a vast storehouse of x-ray films, 90 per cent of which were valueless but all of which had to be reviewed in order to glean the kernels of knowledge hidden somewhere in the mass.

Space Is Costly

An unbroken file of x-ray films also affects the hospital in the matter of space, and space means money, a never ending trickle of money. For what purpose? That the records may be made unwieldy and useless to the staff. A means to the same end and infinitely less irritating to both staff and hospital board would be simply to throw out all records in the beginning and keep no file. The money would at least be saved, so such a procedure would have one virtue, which cannot be said on behalf of the keeping of an unbroken file of all films.

There is such a thing as a scientific x-ray film library, if it may be so termed. This may conform to either of three types. All films depicting unusual, rare or particularly interesting anatomic, pathologic or medical facts may be filed and stored and cross-indexed in such a manner that they may be readily available for study. If only such films are retained beyond the legally required period and all others are destroyed, the question of storage space becomes a minor consideration.

A second method for the retention in accessible form of valuable records of x-ray findings is the preparation of lantern slides of all important films. Storage space is thus conserved and the material is preserved in a form most convenient for presentation at medical gatherings and elsewhere.

Developing a Film File

Probably the most satisfactory method of developing a worth while record from the x-ray department is to combine the two plans mentioned, developing a file of films of truly scientific interest supplemented by a corresponding file of lantern slides.

From a physical standpoint, there are three types of film storage: current file film storage, dark room film storage and permanent file film storage.

There are three types of films in the current file, which differ only in the length of time it is

necessary that they be retained in the file. The films of orthopedic cases must remain in these cabinets the longest time, and a fair time estimate for these particular records would probably be six months. Some of them can be withdrawn considerably before that, undoubtedly, but for estimating necessary filing space it is essential that some arbitrary time period be fixed. Hence, we might say that the orthopedic film should be stored six months.

Films of gastro-intestinal cases should be retained the longest time in the current file, probably about six weeks.

Last, we have the films of the ordinary medical, surgical and specialty cases which may have to be retained in the current file for from two to three weeks. At the end of the period specified, these films may be removed, of course, to the permanent storage files, or they may be sorted and the unessential ones destroyed, according to the policy of the particular institution.

One Cabinet Gives Ample Storage Space

A fair sized hospital receives an average of five thousand patients a year, and the current file space required may be computed accordingly. The usual three-drawer, all metal, x-ray film file has a capacity of about four hundred envelopes per drawer, or a possible volume content of twelve hundred envelopes, approximately one-fourth of the entire number of films taken in a year. At a minimum, 75 per cent of these films are not going to remain in the current file longer than six weeks. At least 50 per cent need not be held in the current file more than three weeks. Hence, it is self-evident that for any hospital of 500 beds or less, one three-drawer cabinet is ample accommodation for the films in the current file.

Such a small quantity of films may be stored in either of two ways. First, they may be kept, with little danger, in the steel cabinet conveniently placed in the office of the x-ray department, if that is where the view boxes are situated, or in the film examining or "view room," if space in the department has permitted that a room be set aside for this purpose.

Secondly, at comparatively little expense, if the office or view room is an outside room, as it presumably is, a storage vault just large enough to contain the cabinet may be built. This should be provided with an outside vent, and it should be remembered that nitrate films give off gas continuously, not alone when they become overheated or are ignited. Hence, the vent should be an ample one. A sprinkler system should be installed and the vault lighted with vaporproof electric bulbs, the switch being outside the entrance to the vault. The outside wall of the vault should have an ample area of "flimsy" or crashable wall so that in case of a possible explosion the release will occur readily into the open air and outward. Entrance to the vault preferably should be through a closely fitting, heavy steel, regular vault door, or as second choice, through a lighter steel fire door.

Such a storage room is, in my opinion, the cheapest and the most logical form of insurance against accident.

What the Dark Room Contains

The dark room contains films in three states. First, there is a certain amount of new, unexposed film. Depending for the most part upon the space available in the dark room, this ranges in quantity from an opened box of each size of film customarily used in the department to several additional unopened boxes of each variety. It is customary in some institutions to keep the entire supply of new film in the dark room, opening it there box by box as it is needed. I have been told by experienced roentgenologists that this new film is so carefully wrapped and packed that any danger is negligible. It is well to bear in mind, however, the statement that nitrate films give off gas constantly. Upon this premise, it appears extremely hazardous to keep any larger quantity of such films in the dark room than is necessary, additional supplies being procured from the main film storage room.

Safeguarding the Dark Room

Another type of film in the dark room is that which has been exposed and is in the bath and that which, after passing through the bath, is hung up to dry. I think we may safely agree with the x-ray man that the film in the bath is innocuous. The drying films are few in number, from a dozen to a few dozen at most, and are usually removed and on their way to the "view room" or current file almost as soon as they are dry. I do not believe, therefore, that they need be considered in any way a liability. I would recommend just a few safeguards for the dark room. As has been mentioned, the dark room should not be made the storage room for the hospital's entire supply of new film. In my estimation, the dark room, like the vault in which the current file is stored, should have a sprinkler system, vaporproof electric bulbs, and all electric switches placed outside the room.

Only two types of storage space are feasible if we are to continue to use nitrate film, and the same types of storage are necessary if we are to

use acetate film and store it in large quantities. These are, first, a storehouse upon the roof, and second, a separate building. I believe that the only determining factor in choosing between these two is the convenience of the individual institution.

Whichever type of storage is selected, the ventilation must be a matter of primary concern, and an individual ventilating system, completely segregated from all other ventilating systems of the hospital, must be installed. There should be a large area of crushable ceiling and wall space with a view to the possibility of an explosion. There must be a large vent. A sprinkler system must not be omitted, and the other safety devices, mentioned in connection with current file storage, namely, vaporproof electric bulbs and all electric switches placed outside the room are here even more important. If films are to be stored on the roof, there should be no direct egress from portions of the building below: no stairways, dumb-waiters or elevators through the floor into the storage unit. The same warning must be considered if a separate building is to be used. Entrance should be direct from the outdoors and not by a hall or connecting door from some other part of the hospital.

Acetate Versus *Nitrate Films*

Along with the interest in protective measures for the safeguarding of hospitals against fire and disaster from ignited x-ray films, there has developed the idea that such dangers may be further eliminated by changing the type of film to be used. Some hospital men strongly urge that only celluloid acetate films be used. Because of the agitation in their favor, the acetate films have come to be known as "safety films," a title that might be misleading. These films are slow burning as compared to those now used, which certainly is an asset worthy of consideration. Second, it is said that they do not give off poisonous gases when in storage or when burning. These are the only two reasons I have heard advanced for the use of acetate films, but they are weighty ones. However, a discussion of the second and most important claim with the representative of a prominent fire underwriters association elicited the statement that he did not know whether or not these films would give off poisonous fumes in case of serious fire.

If the two advantages are accepted as beyond question, there still remain certain disadvantages in the use of acetate films. They do not produce as clear and distinct an image as the usual commercial films. Their value as a diagnostic aid to the physician is thereby materially reduced. They are much more fragile than ordinary films, and they curl and fray badly. It is for these three reasons that they have been tried and found wanting in the moving picture industry. It is difficult for me to comprehend just how a type of film that is objectionable to manufacturers of moving pictures on such grounds can be seriously considered for delicate diagnostic work, the possible determination of life or death for human beings.

Many Protective Measures in Use

There remains one final objection to the use of acetate film in hospitals, namely, the greater expense. It has been estimated that the use of acetate films would mean an increased film expense of 25 per cent. Such items are not negligible in a large institution.

It is natural that there should have been just a little hysteria in the air relating to the dangers attendant upon x-ray film storage and fire dangers. Startling catastrophies occurring within the past two years have provided ample reason for hospital executives and hospital boards to give serious consideration to these matters. But calm thought need not lead to panic. It will be recalled by some that illuminating gas was once thought extremely dangerous and its use in large buildings bitterly opposed. There have been some explosions and asphyxiations but on the whole the dangers have been successfully overcome. Electric wiring was once a menace to life and property but safeguards were developed as the need for electricity widened. No hospital would consider a return to candle light because of the dangers of electricity. The use of ethylene as an anesthetic has resulted in fatalities, but safeguards against the dangers are being developed constantly, and to-day a considerable percentage of the large hospitals are using it. What of the dangers of sepsis following a surgical operation? It is the same on every side. Dangers have been nullified by protective measures that have been developed and instituted.

Preparing Against Film Dangers

As I see the problem, it is not the degree of inherent or latent danger in any article or device that determines our acceptance or rejection of it as a valuable commodity for daily use; it is a question of preparedness on our part to nullify those dangers by intelligent protective devices. I, for one, would go on record as favoring this policy in regard to the film question. The best films are none too good and rather than abandon them for an inferior article, let us adequately safeguard the hospital against their latent dangers.

The Privilege of Being a Hospital Trustee

By S. S. GOLDWATER, M.D.
New York City

THERE are certain valuable experiences in life to which the multitude may not reasonably aspire. One of them is the experience of being a hospital trustee, a privilege which in the United States is reserved for the republic's best hundred thousand citizens.

A privilege is defined as "a right, immunity, benefit or advantage enjoyed by an individual or group of individuals beyond the common advantages of other individuals," and in this sense the privileges of a hospital trustee are many.

What Trusteeship Offers

In exceptional cases women, whose lives reflect all the delicacy and refinement of a sheltered life, are nowadays found serving with distinction on hospital boards. But the typical American hospital trustee is a successful man of business, and it is no small matter for a business man to find himself suddenly translated from an environment in which a man's worth is judged by what he can grasp and hold to one in which he is rated according to what he freely and unselfishly gives away. It may not be altogether accurate to characterize the business world as a place of sordid acquisitiveness and the hospital world as the exclusive home of generosity. I am quite ready to concede that the "economic man" whose sole motive is gain was never more than a fiction of the earlier political economists and that the use of such a term is a libel on humanity. In addition to the satisfaction of amassing wealth, successful business men, I believe, derive from their activities the solid comfort of fellowship, the pleasing sense of power and those peculiar satisfactions that come only from creative work.

And yet, since under a competitive business system no enterprise that is unprofitable can survive, the desire for profit must ever be in the forefront of the business man's mind, cutting off his sympathy and damming up the springs of his generosity. From this frustration of man's kindlier instincts hospital trusteeship offers a way of escape, an opportunity for the growth and enrichment of personality.

But this is not all. Mankind has often been pictured as engaged in a life and death struggle with disease. We are hemmed about by dangers of which we are sometimes clearly, sometimes only vaguely, conscious and from these dangers we are constantly striving to escape. In the wars between nations there are combatants and noncombatants, a military class and a civilian class, militarists who believe in the efficacy of war and pacifists who see in warfare only that which is destructive and degrading. In the war against disease there are no pacifists, none who holds himself aloof and is unwilling to share at least in the work behind the lines. All are actually or are in some sense ready to be participants. All are eager for news from the front, but the bulletins do not reach everybody at the same time. The hospital trustee occupies a point of vantage from which he can hear the noise from the firing lines and can even see the front line trenches. It is his privilege to provide the sinews of war, to be consulted from time to time about the plan of battle, and to hear the details of each successful offensive before the news becomes common property. It is his privilege also to converse day by day with officers and privates, and to give moral and material support to those who are bearing the brunt of the fight.

How the Hospital Serves

If from one point of view the hospital may be regarded as part of a militant machine whose function it is to safeguard mankind against forces inimical to life, from another angle the hospital is disclosed as part of the educational structure of modern civilization. The hospital teaches its patients how to live, and from its laboratories, its wards, its social service departments, and its schools of nursing it sends out into the world an endless stream of teachers to carry into the remotest hamlets the golden truths of hygiene. Governments profit by hospital experience, for carefully compiled hospital statistics may be the first indication of dangers that menace the body politic. It is the privilege of hospital trustees to participate in the creation of specialized educational machinery which is of enormous social

value and to regulate its growth, whether independently or in affiliation with universities.

The hospital organization depends for its efficiency on the fitness of each human element to perform a special and clearly defined task. The members of a hospital staff do not work alone but in conjunction with others; hence a congenial personality is often as essential to success as a penetrating mind or rare manual skill. The selection of members of the hospital staff usually rests with the hospital trustee, who is thus called upon to become a critical judge of men both intrinsically and in relation to their hospital environment. In the course of his experience the trustee is likely to find that the cleverest men are sometimes too individualistic and self-assertive to serve the hospital well. It was once reported that a Frenchman had invented a chemical compound so powerful that it was capable of dissolving any substance with which it was brought into contact, whereupon *Punch* facetiously said "We wonder what he keeps it in." A hospital worker should react with his fellows, should stimulate and be stimulated by them, but he must not be eager or even willing to increase his fame at the cost of destroying the self-respect, reputation or effectiveness of his colleagues.

Selecting the Hospital Personnel

One of the most fascinating and dangerous privileges of the hospital trustee is the duty of selecting men who combine in their make-up the intellectual and moral qualities that hospital service requires. The trustee may not be able to frustrate genius, for genius has a way of defying ordinary human judgment and all man-made institutions, but by the manner in which he exercises his official judgment he can encourage or discourage talent, and to that extent can make or mar the hospital. To a modest man this is an almost terrifying privilege, the courageous exercise of which is a task to challenge all his fortitude.

The community hospital deals with rich and poor, with the sheltered and the friendless, with the cultivated and the uncultivated. The rapid growth of social service departments shows that hospitals now look upon their patients as human beings living in and frequently suffering from maladjustment to a definite social environment. Through the social service department the hospital trustee who is not a mere skimmer of surfaces is given an opportunity to look beneath the superficial facts of our social organization into the depths, and thus to acquire an understanding which is not open to the common man of the complexities of the modern economic world.

It is the privilege of the hospital trustee to awaken prosperous but unobservant neighbors to a sense of their social responsibilities, to mediate between rich and poor. The trustee whom religion claims as its own finds in the hospital an opportunity to put into practice ethical precepts that are an integral part of his faith. The earliest hospitals recorded in history were inspired by religious motives, and religious impulses remain to this day the source of much that is valuable in hospital life.

If a trustee is inclined to be sociable he will find in the hospital congenial companionship. If he is easily moved by suffering he finds himself in a position to contribute to the alleviation of the pain and misery that distress him. If children fascinate him he can study them at close range and can win their affectionate regard. The art lover who joins a hospital board is almost certain to find that the hospital can be improved by tasteful decoration, while the devotee of system and order soon discovers that many of the hospital's internal affairs cry out for adjustment and that his knowledge of business system can be made a great asset to the institution.

It seems clear that in many ways the hospital trustee has the opportunity to make the world a better place to live in, and that he is fortunate above the average man. Once fully awakened to his task he has a never ending series of useful and interesting duties to perform and is immune from the afflictions of middle age boredom. He enjoys (though this fact must not be too widely advertised) the benefit of much free medical advice, and he has the enviable advantage of having at his command a reliable agency through which he can benefit mankind not only during his lifetime but, if he is sufficiently thoughtful and generous in the preparation of his will, as long as the present social-economic order endures.

Teaching Script Handwriting to the Blind

The National Institute for the Blind, London, is going to provide facilities for teaching the blind to learn to write in script, the handwriting used by those who see, according to the *Journal of the American Medical Association.*

Few blind persons understand any method of writing except Braille, which is a great disadvantage to professional men. The institute believes that if they could write script it would help to reduce the handicap of their blindness, especially since the blind are taking so active a part in commerce and the professions.

The first step will be the preparation of a copy book in which written letters of the alphabet, words and sentences will be reproduced in dots embossed on paper.

Combining Work, Play and Living in This Modern Nurses' Home

By ARDEN E. HARDGROVE
Superintendent, City Hospital of Akron, and
E. D. WAGNER
Architect, Akron, Ohio

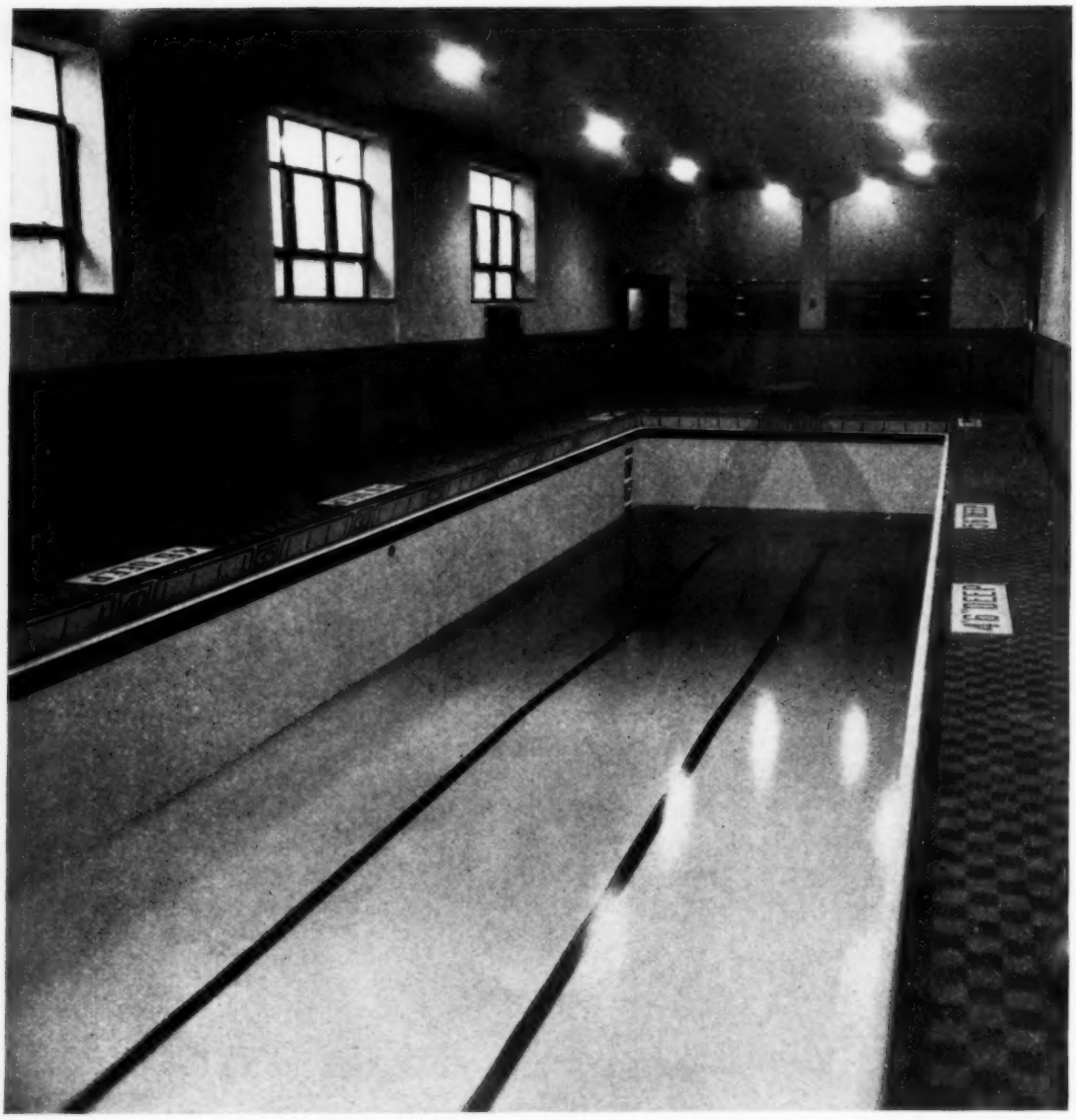
THE development of suitable nurses' homes is undoubtedly one of the most important activities in the hospital industry to-day.

An example of this diligence of the hospital in planning for the comfort of its nurses is the Idabelle Firestone Nurses' Home which was recently completed for the City Hospital of Akron. In this new home, made possible by the gift of Mr. and Mrs. Harvey S. Firestone, the recreational, social and teaching facilities have been given more than average consideration. A number of the features show progress and development worthy of note. The building, also, presents an interesting architectural problem and its solution.

The plot plan adopted for the development of the entire hospital group provides for the rotating of the hospital front from the main artery of traffic upon which it now faces to a quieter avenue on the adjoining side. Some time prior to the preparation of plans for the nurses' home, property 215 feet in width and 355 feet in depth was purchased for the home. This property faces on the avenue and is directly opposite to what will be the center of the completed new hospital group. A new surgical building, also facing the avenue, was opened three months earlier than the nurses' home.

A large residence, which was being used for the housing of each year's preliminary class, occupies one corner of the nurses' home site; so it was decided to build an L-shaped building, utilizing the remaining frontage and the other side. As the need arises for a larger home, this residence structure will be removed and the L-shaped building continued into a U-shaped building by duplicating the portion lying south of the front entrance. The

The Idabelle Firestone Nurses' Home, City Hospital, Akron, Ohio.



The swimming pool is of white tile with green trim.

most difficult architectural problem was to plan the entrance so that it would be in the center of the ultimately completed home and yet not appear to be misplaced in the present unit. This was successfully accomplished chiefly by proper window grouping.

Since our needs required accommodations for 150 nurses, a plan was first considered that provided for this number of single rooms. Later, a study for economy with maximum accommodations led to a plan that provided double rooms on the dormitory floors of the rear wing, leaving all single rooms in the front portion. Thus, in the completed unit there are sixty-nine single rooms and forty double rooms, giving the home a capacity of 149 beds. There were early requests for the double rooms, and this proportion has proved satisfactory under working conditions. It was the especially expressed desire of the donors, Mr. and Mrs. H. S. Firestone, that the home be planned to contain desirable educational, recreational and social facilities as well as dormitory accommodations. This objective was kept in mind during the planning and building of the home.

The general appearance of the home is that of a distinctive women's club. It is six stories high and is built of dark red brick with stone trim. The architecture is Colonial. The frontage of the building is 127 feet and the depth of the wing is 110 feet. The main portion of the front is 37 feet wide, while that of the wing is 39 feet wide. A two-story recreational wing, situated directly back of the front entrance, is 40 feet wide by 75 feet long.

The entrance is strictly Colonial in design, with an entrance porch of decorated bronze. To enhance the social and home atmosphere, all business, recreation and instruction activities are grouped on the ground or entrance floor, which adds greatly to the privacy of the living room and dormitory floors. Directly opposite the entrance a Colonial stairway leads from the lobby to the living rooms on the second floor. The entrance to the combined auditorium and gymnasium leads from the landing on this stairway midway between the two floors, an arrangement that contributes to the privacy of the living rooms. The control desk to the left of the entrance is similar to that of a club or a hotel, all mail and other deliveries, requests for information and the telephone switchboard being centered there. The en-

trance, lobby, control room and stairway are all finished in old ivory glazed travertine plaster. A memorial bronze tablet, commemorating the gift of Mr. and Mrs. Firestone, is in a niche on the right of the front lobby.

Adjoining the control desk is the office of the recreational director. The supervision of the swimming pool and other recreational activities requires the full-time services of a competent social and recreational director. The remainder of this floor is devoted to educational use in the school of nursing. An instructor's office, a small classroom seating twenty-four students and a large classroom seating 120 persons, which can be divided into two parts by a folding door, occupy the front portion. Adjoining the large classroom is a technical library in which are kept all technical reference books and nursing and other professional publications. This library is used only for study.

The color scheme for the nurses' bedrooms is apricot and green.

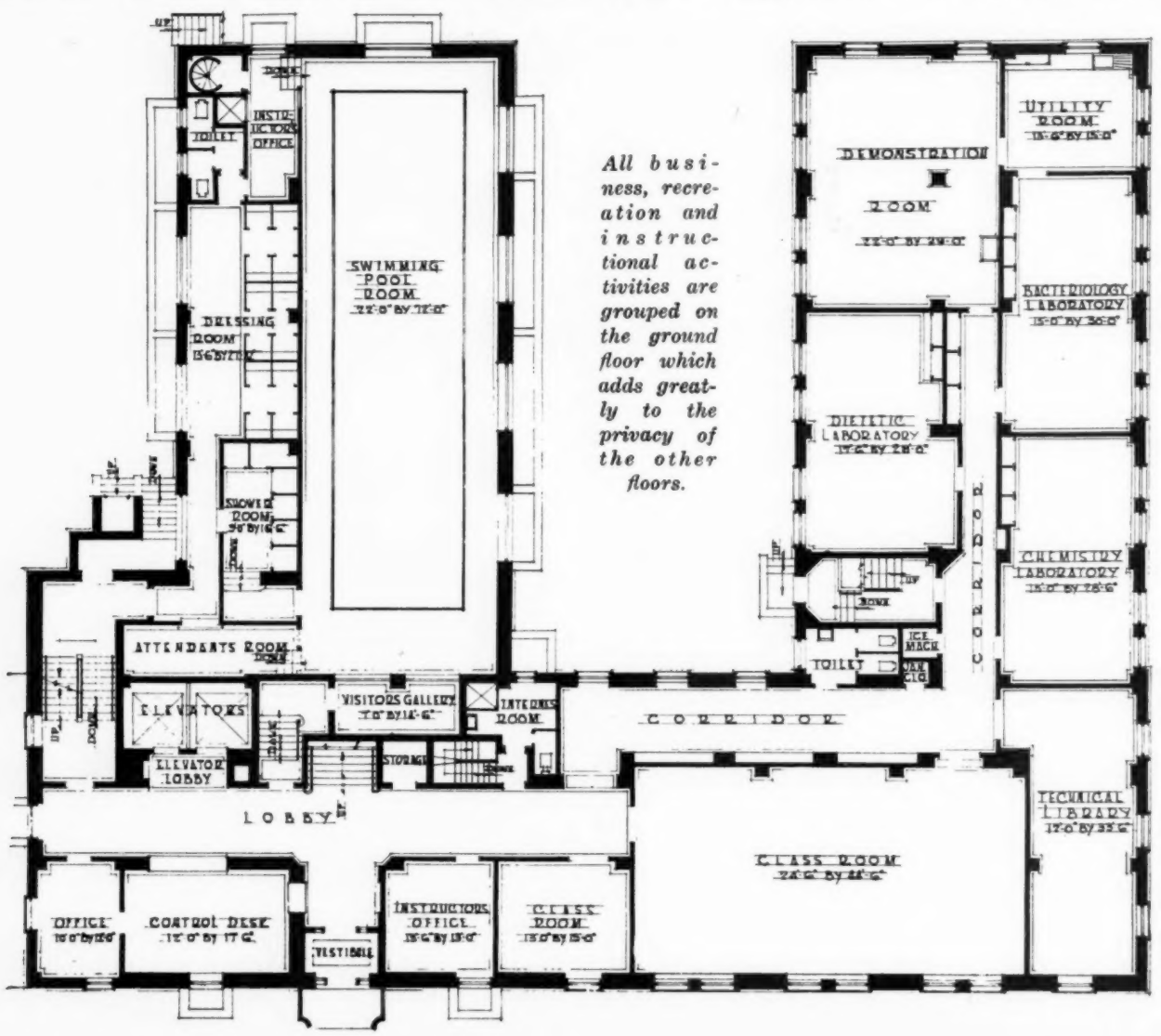
The first laboratory is used for chemistry and the second laboratory is used for biology and bacteriology. Each contains a laboratory table accommodating thirty-two students. The dietetic laboratory contains four units accommodating four persons each, or a total of sixteen students. The demonstration room is fully equipped with six hospital beds and all accompanying hospital facilities for the care of patients. The utility room is fully equipped with bedpan washer, slop sink, combination sink and laundry tray and complete setup of sterilizers including instrument, utility, water and dressing sterilizers. In this way student nurses receive more complete instruction in the operation of sterilizers than has hitherto been possible. The dressing sterilizer is also used by the bacteriological laboratory. In the corridor adjoining the large classroom are sufficient small lockers so that students may leave texts and notebooks either in coming or going to the classrooms from the hospital. The school of nursing at the present time consists of eighty students, and the accommodations are proving ample and well planned for this number.

The recreational wing, as already noted, is only two stories in height. Ten steps below the level of the ground floor is the swimming pool, with dressing rooms and showers. Steel partitions are used in the dressing room, and it is necessary to go through the shower room and through a foot bath before entering the swimming pool. A visitors' gallery is provided so that no one is allowed

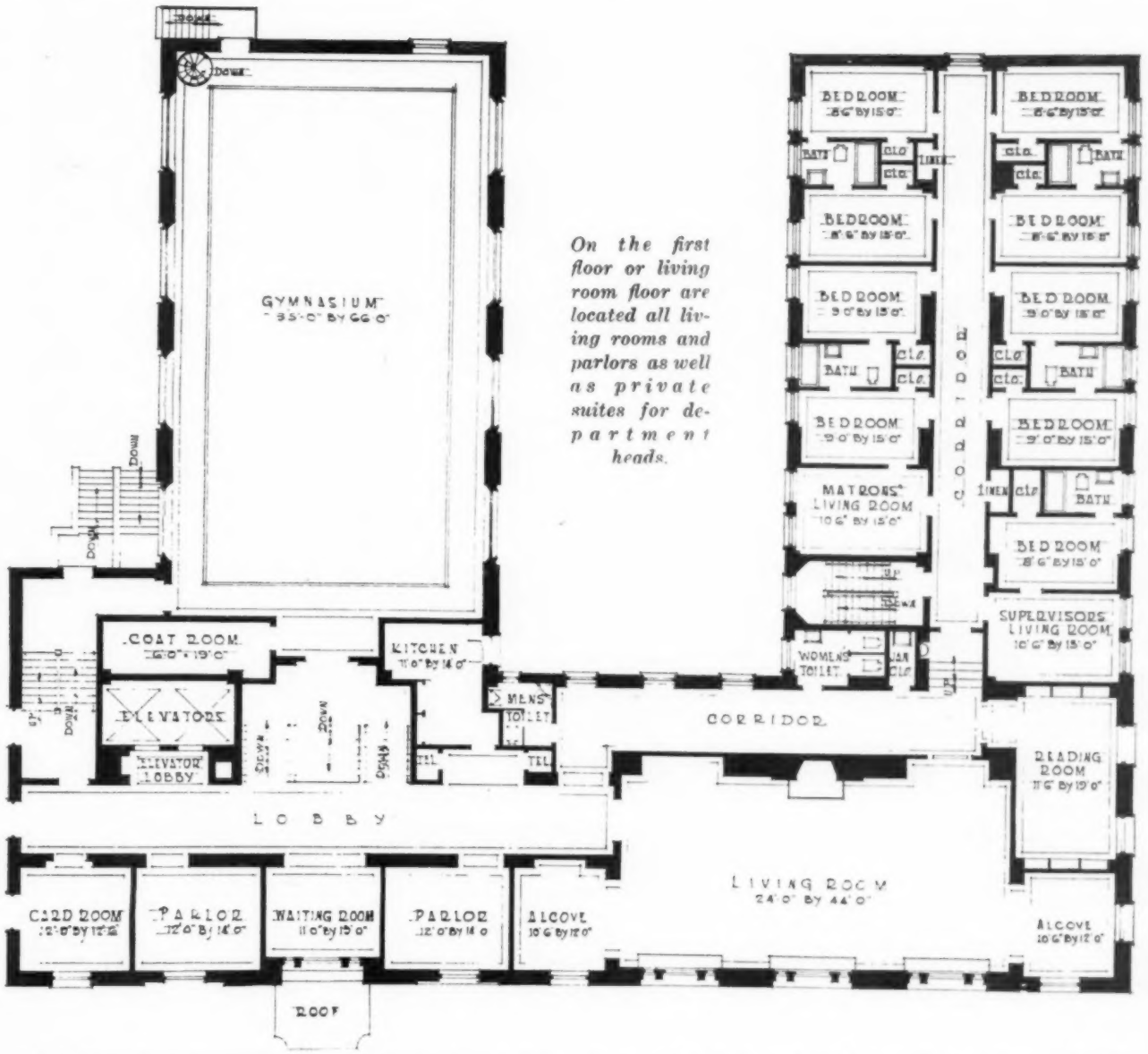
on the deck of the pool unless in bathing suit. The pool is 15 feet wide by 60 feet long, these dimensions providing the regulation length, with three lanes of 5 feet each. The depth varies from 3½ to 8½ feet. The pool itself is in white tile with green trim. The deck and wainscoting are in a two toned brown tile with red trim. Art plaster is used for the remainder of the walls and the ceiling. As previously described, the combined auditorium-gymnasium is entered from the landing of the stairway that leads from the lobby to the living room floor. This room, finished with a six-foot wood wainscoting and plaster above, is 35 feet wide by 65 feet long and is marked for basket ball, volley ball and indoor tennis. It is equipped with a full-sized moving picture projector and has a portable stage. Dances, picture shows or other types of entertainment are planned for one night a week.

On the living room floor are three rooms that may be reserved by the residents of the home for private use in the receiving of guests. The first is a card room, furnished in blue and red. The remaining two are parlors: one is furnished in black and henna; the other has green furniture with a black trim and green, red and black upholstery. A waiting alcove is to be found at the center of the floor lobby opposite the stairway. The beautiful main living room is strictly Colonial in architecture. It has two music alcoves, one of which is used for the piano and the other for the radio and phonograph equipment. A huge Colonial fireplace is the central feature of the room and adds to its homey atmosphere. The furnishings are strictly of the Georgian period, with furniture of mahogany and the color scheme is in tan and green, with mulberry relief. A reading room adjoins the living room. These rooms are all trimmed in old ivory.

Three steps above the living room floor, in the south wing, are the suites for the directress of nurses and the matron of the home. Here are also seven single rooms with communicating baths which are occupied by other department heads.



All business, recreation and instructional activities are grouped on the ground floor which adds greatly to the privacy of the other floors.



On the first floor or living room floor are located all living rooms and parlors as well as private suites for department heads.

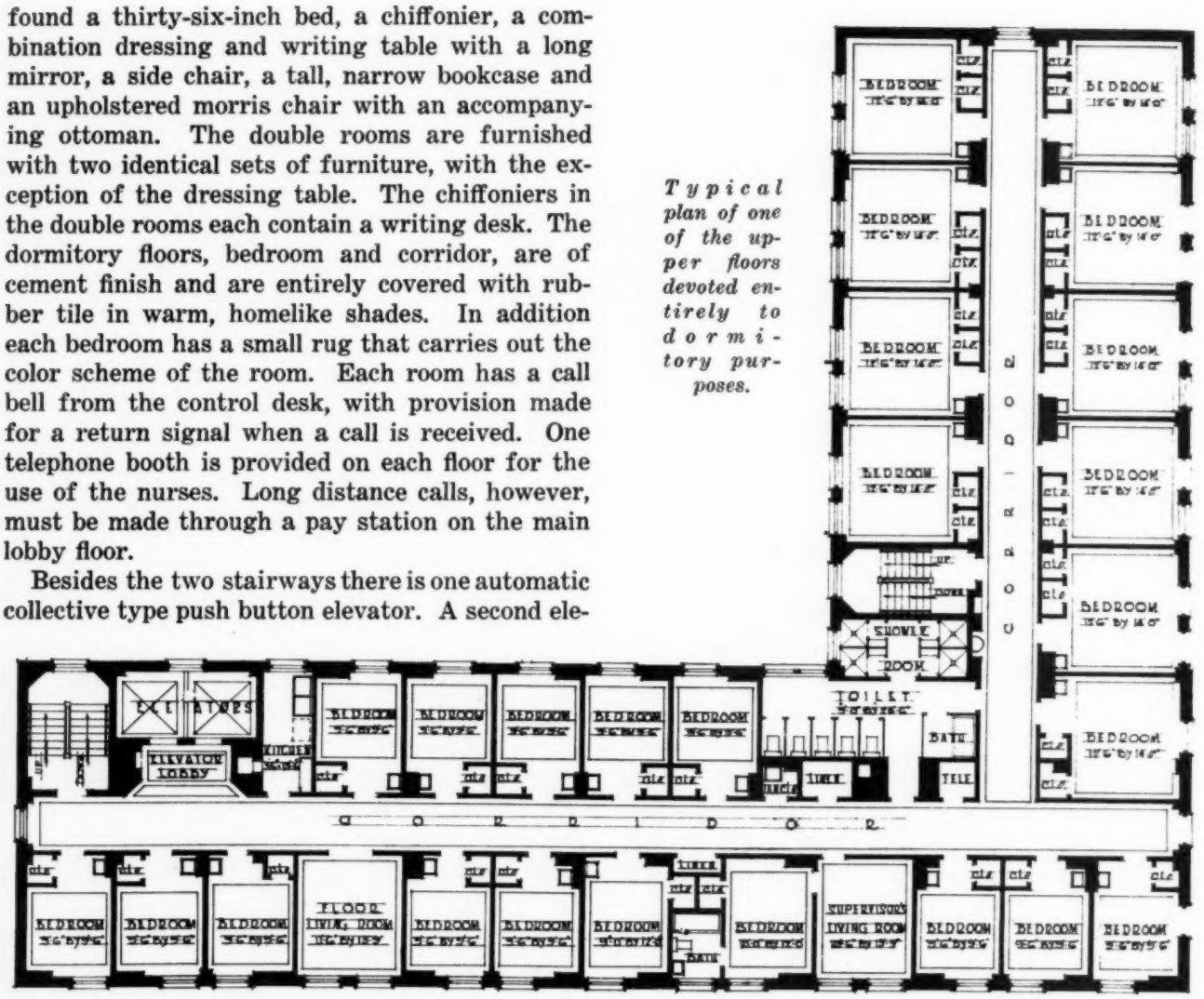
The four dormitory floors are planned and furnished identically, each consisting of fourteen single rooms, ten double rooms and a supervisor's suite, consisting of a living room, a bedroom and bath, which is occupied by a faculty member of the school of nursing who is held responsible for the supervision of the floor. On each floor is a living room where the girls may gather in negligees, for their home parties, thus eliminating the necessity of having to use their bedrooms for this purpose. Opposite this living room is a kitchen equipped with cupboards, electric hot plate, combination laundry tray and sink, drier, ironing board, incinerator and a small refrigerator, centrally cooled. There is also an ice water circulating system with tumbler filler and drinking fountain on each floor.

In the planning of the dormitory floors it was considered essential for the comfort of the nurses that each room should be provided with a lavatory, with hot and cold running water. For the use of the thirty-four residents on each floor there is a central toilet room, consisting of five toilets, four showers and one tub bath. Above the lavatory in each room is a built-in mirror medicine cabinet, illuminated by an overhanging wall light fixture. There are three other light fixtures in each room—an indirect central ceiling lamp, an adjustable wall bracket over the head of each bed and a bridge type of floor lamp for reading and studying. The double rooms have an additional wall bracket light over the second bed. Each nurse is provided with a clothes closet, there being two in the double rooms.

The color scheme of the rooms is apricot and green carried out in mohair striped window hangings, apricot tinted walls and sand and green bedspreads. The ceiling and the wood trim are in ivory. The furnishings are entirely in wood, natural maple finish, and in the single rooms are

found a thirty-six-inch bed, a chiffonier, a combination dressing and writing table with a long mirror, a side chair, a tall, narrow bookcase and an upholstered morris chair with an accompanying ottoman. The double rooms are furnished with two identical sets of furniture, with the exception of the dressing table. The chiffoniers in the double rooms each contain a writing desk. The dormitory floors, bedroom and corridor, are of cement finish and are entirely covered with rubber tile in warm, homelike shades. In addition each bedroom has a small rug that carries out the color scheme of the room. Each room has a call bell from the control desk, with provision made for a return signal when a call is received. One telephone booth is provided on each floor for the use of the nurses. Long distance calls, however, must be made through a pay station on the main lobby floor.

Besides the two stairways there is one automatic collective type push button elevator. A second elevator will be installed when the future addition to the home is built. To facilitate window washing, pivot window sashes, which are screened with exterior roll screens, are provided throughout the building. The roof is covered with tile so that a roof garden may be furnished in the future. In the basement are a trunk room and the necessary service pumps, hot water heaters and swimming pool control apparatus. Leading from the basement level is a tunnel passing under the street and connecting the nurses' home to the hospital group, thus providing both a protected passageway for the residents of the home and a means of carrying the various mechanical services from the main heating plant. The extensive grounds in the rear of the home provide a tennis court and lawns for outdoor games and recreation. The entire grounds have been appropriately landscaped.



Typical plan of one of the upper floors devoted entirely to dormitory purposes.

The keynote of the building was a distinct desire to achieve a homelike atmosphere and avoid all possible institutional touches. In general, through the selection of chair coverings, hangings, rugs, carpets, lamps, tile, woodwork and wall finishes, a residential atmosphere was successfully obtained, together with adequate recreational and educational facilities. The personnel have shown a genuine appreciation of the home.

A Cardboard Bracelet to Protect the Nursery Baby

Several simple devices are used in the nursery of the Kansas City General Hospital, Kansas City, Mo., that are different from the usual type, says an article in the *American Journal of Nursing.*

One of these is a cardboard bracelet—to be used instead of the usual cheesecloth and cardboard "mitt" which fastens a baby's hands to his body in case of eye or face infection. The bracelets are placed around the baby's elbows, which enables him to move his arms about without touching his face.

The bracelets are made of a strip of soft cardboard—a kind that will roll easily—eight inches long and three inches wide, bound along the edges with adhesive tape. Tape an inch and a half wide is used, to make the edges smooth and the bracelets last longer. A strip of adhesive of sufficient length to hold the bracelet firmly on the infant's arm is fastened to one end of the cardboard.

Fitting the Contagious Unit Into Its Proper Niche

By F. G. CARTER, M.D.
Superintendent and Physician and Surgeon in Charge, Ancker Hospital, St. Paul, Minn.

THE most carefully planned contagious unit will fail hopelessly in its purpose if it is not conducted by one who knows contagious diseases and their modes of transmission and who has the courage, tact, patience, resourcefulness and judgment to handle all situations arising in connection with the enforcement of principles of aseptic technique.

IN THE light of developments of the past thirty-five years, it seems almost superfluous to emphasize the fact that it is no longer necessary to build contagious disease hospitals on the outskirts of cities. Yet the older idea is prevalent and warrants discussion.

Back in the dark ages of medicine, little was known of the characteristics and life histories of the diseases now referred to as "infectious," "transmissible," "communicable" and "contagious." Definite knowledge of the rôle of bacteria in the production and perpetuation of disease was not available. The coming of a "scourge," "pestilence" or "plague" meant to many of the earlier peoples that the deities had been offended and that punishment was being meted out to the offenders. As the gods had indicated the objects of their wrath by causing them to become afflicted with these terrible diseases, what could be more logical than an effort on the part of the unafflicted to appease their gods by herding together and casting out, to live or die as best they might, the victims of the divine displeasure? Christianity did much to change these conditions when it routed superstition and demanded of its adherents that they visit the sick and made such visiting a tenet of the faith and a rigid obligation of its followers.

This advance was humanitarian in character and was instrumental in providing food and shelter for the stricken, but it was, above all, a stimulus to the study of the great epidemiologic problems involved. The communicable nature of many diseases was gradually recognized and isolation hospitals, far removed from human habitations and avenues of human traffic, were built to house the sufferers. These isolation hospitals often were temporary structures which were abandoned promptly after the immediate need for them had disappeared.

Differentiation of the various diseases is a comparatively recent achievement. As late as the middle of the last century, patients with contagious diseases were admitted to the wards of the general hospitals. In some instances, wards were set aside for contagious diseases only. Much confusion existed and progress seemed to be arrested at this point. Physicians were unknowingly awaiting new discoveries in practically unknown fields, even as to-day their progress in the search for the cause and cure of cancer may be halted pending the unfolding of entirely new fields of thought and action, with accompanying revolutionary changes in methods of scientific approach and study.

A light broke over the horizon when the science of bacteriology was born but as is the case with many of the great discoveries that are responsible for medical advancement, progress was difficult and slow. More than two centuries of laborious research were necessary to bring the science to a state of usefulness in medicine.

After Koch and Pasteur and their contemporaries, late in the nineteenth century, had clearly demonstrated the rôle of bacteria in the causation of many of the acute diseases, new conceptions of prophylaxis and treatment inevitably followed. Bacteriologic studies, although not revealing the causative organisms of all the contagious diseases, uncovered the evidence necessary to explain the previously known communicable nature of some of them. Further emphasis upon the necessity for isolation was a logical sequence, but in order to formulate a practical working hypothesis that could be used successfully to combat the spread of these diseases, knowledge of modes of transmission was necessary.

After carefully considering the fact that the environment of any individual was known to be

teeming with bacteria, and assuming the same condition for the virus of diseases of unknown etiology, scientists evolved two theories of transmission—contact, direct and indirect, and atmospheric. The surgeons were the first to make practical application of the principles of bacteriology to their work. They rapidly developed a technique that included carbolization of the air about the operative field with a spray. This was so irritating to all concerned with the operation that the method was soon abandoned without appreciable increase in wound infections. The surgeons logically concluded that organisms in the air were of little or no significance in operative asepsis and concerned themselves with a technique that took into consideration only the dangers of infection by direct and indirect contact.

The conclusions of the surgeons did not meet with general acceptance, and the construction of contagious disease hospitals continued along lines that conformed with the original conceptions of disease transmission. Separate buildings were constructed to house patients with each disease, and smallpox, scarlet fever and diphtheria received chief recognition. Later, hospitals were constructed to care for more than one disease, but the wards or floors for each disease were entirely separate. The arrangements were such that a visitor to one group of patients could not again come into contact with his fellow beings without first going out into the fresh air. This fresh air bath was thought to possess certain bactericidal qualities, although, if this is a true concept of the belief of the time, it is difficult to understand how the air could be credited with being both a harborer and destroyer of germs.

European Pediatricians Pioneer

In the eighties of the last century, the pediatricians of Europe were the first to realize the possibilities of applying surgical ideas of asepsis to the control of contagious diseases. They were stimulated to action by witnessing the ravages of these diseases among institutionalized children. These men, like the surgeons, discarded the theory of air-borne infection, removed the children from large wards to small rooms and insisted upon principles of surgical cleanliness in the management of cases. The results were eminently satisfactory. The movement spread rapidly, and thus medical asepsis came to take its place alongside of surgical asepsis in the armamentarium of the medical profession. This practice is now accepted the world over as representative of the best thought in the management of contagious cases.

The types cared for in any one institution have slowly increased until all forms of contagious disease and even those considered only mildly contagious are housed under the same roof. Such conditions are made possible only by a thorough understanding and a rigid application of the principles of medical asepsis. The most carefully planned contagious unit will fail hopelessly in its purpose if it is not conducted by one who knows contagious diseases and their modes of transmission and who has the courage, tact, patience, resourcefulness and judgment to handle all situations arising in connection with the enforcement of principles of aseptic technique.

How Medical Asepsis Prevents Contagion

Medical asepsis is a procedure that breaks at its source the chain of circumstances leading to the propagation of disease. A person suffering from a contagious disease constitutes a source of infection for others, and anyone who comes in contact with that person, either directly or indirectly, may acquire the disease or pass it on to a third party. Similarly, anything in the immediate environment of the patient may act as an agent in passing the disease on to others. Medical asepsis throws a barrier of sterile technique about the patient. Only sterile things cross the barrier to or from the patient and thus the sequence of events leading to the spread of the disease is interrupted at the point of inception. Within the last few years a man who had been exposed to smallpox in a distant community wandered into a large city during his incubation period. In course of time, he developed a severe case of the disease which was unrecognized. From this one source of infection ninety people were striken before the epidemic was under control. Early recognition and proper management of the first case would have prevented the epidemic.

I have indicated briefly the development of the present conception of contagious disease management, and the underlying principles have been found to differ in no way from those used in the management of operative surgical cases. The task remains of fitting the contagious unit into its proper niche in the general social and economic structure. It can no longer be said that it is a menace to its environment. The strength of this argument has long since been dissipated by the experience of numerous cities that have built and operated contagious disease hospitals in heavily populated districts, without ill effect. In general, surrounding property values are no more affected by a contagious disease hospital than by a general hospital. Few, if any, arguments remain for the suburban or rural location,

but there are many that point toward the wisdom of the central site and particularly toward close association with the general hospital.

As a certain amount of visiting is permitted in the newer types of contagious hospitals, accessibility is a matter of considerable importance in the minds of those who have occasion to visit patients. It facilitates the delivery of supplies, brings the hospital within easier reach of patients, and makes the benefits of consultation with representatives of all the medical and surgical specialties more readily available. The latter is particularly true when the contagious unit is a part of the general hospital organization. Patients with contagious diseases are just as much in need of varied professional attendance as any other group.

The cost of operating such hospitals as independent units is high because of the necessary technique and the wide fluctuations in the patient census. Expense has been prohibitive for the smaller communities, and in the larger centers efforts to economize have allowed construction to be influenced more by average than by maximum needs. The result has been overcrowding in the peak months, with all of the attendant evils of cross infection, one of which is prolongation of the hospital stay, more overcrowding and more cross infection. The ill repute of some contagious disease hospitals is readily understandable on this basis, and home isolation is by all odds preferable to hospitalization under such conditions. Either facilities should be adequate or the rule against overcrowding inflexible.

An Economic Measure

Since present methods permit the location of the contagious hospital on the same grounds with the general hospital, studies aiming at reduction in costs should carefully evaluate developments along this line. This arrangement is now in effect in numerous communities. Some have even incorporated a properly isolated contagious unit in the same building, which is perfectly feasible if a properly trained personnel is placed in charge. The latter plan seems to offer a logical solution of the problem in the small community. Close association with the general hospital makes possible the use of the personnel of the contagious unit for vacation relief during the summer when contagious diseases are at a low ebb. Duplication of administrative and maintenance costs is eliminated, and the same may be said in part for such services as heat, light and power, laundry, garage, dietary, pharmacy and the laboratory. In some instances, when the contagious census is low, rooms in that section, after proper cleaning, are used for patients who do not have contagious diseases. These are suggestive of the accomplishments that may be expected when the possibilities of the combination plan have been exploited.

The gradual improvement of the status and general efficiency of the modern contagious disease hospital has been due as much to increasing flexibility as to any other factor outside of bacteriology. Dovetailing of the contagious unit with the organization and plan of the general hospital represents the most recent emphasis upon this factor and thus far, results seem to have justified the trend.

Why a Nonmedical Gallery Should Not Be in the Operating Room

Requests are often made of hospital administrators by nonmedical persons for permission to view an operation. Sometimes the relatives of a patient for various reasons ask permission to be present in the room at the time of operation. Sometimes others from the mere standpoint of curiosity request such a favor. For many reasons, no person who is not a physician or a nurse should be allowed in the operating room while surgical work is being carried on. Often such persons at the most critical moment during the surgical procedure require the attention of a physician and thus detract from the work at hand. Of greater importance is the fact that lay persons often describe such experiences with some elaboration to admiring audiences and thus create a false impression of hospital work. Surgeons are sometimes tempted to wish to display their skill before admiring friends. This policy is to be discouraged by the hospital.

The enforcement of the rule forbidding the admission of nonmedical visitors should be in the hands of the medical director of the hospital, but it should actually be carried out by the operating room supervisor. Medical students should, of course, be permitted to visit the operating room but such semimedical persons as visiting social workers, occupational therapists and dietitians should be prohibited. Any policy which aims to cheapen the scientific atmosphere of hospital work should be discouraged, and the admission of a nonmedical gallery to view operations falls in this classification.

Sending X-Rays by Wire for Consultation Purposes

And now the doctor who practices in the smaller towns and rural districts may have the benefit of consultation with eminent specialists—by wire, says the *Pine Cone*. All the doctor has to do is to make the proper radiograph and, if he does not live in San Francisco, Los Angeles, Chicago, St. Louis, Cleveland, Boston, New York, Philadelphia or Atlanta, post it by air mail to the nearest of these cities, with a short message explaining the nature of his inquiry. The radiograph is reduced to 5 by 7 inches by the sending offices in these cities, and is then placed on the sending machines and sent in the same way that photographs are now being sent—by means of electrical impulses sent over wires and cables.

What Price Service? A Message to Small Hospital Executives*

By RALPH M. HUESTON
Superintendent, Silver Cross Hospital, Joliet, Ill.

TO THE administrators of small community hospitals:

The following excerpt is taken from a letter that came to my desk recently.

"On my travels I met a physician connected with a large city hospital who told me with no little pride that more than $200,000 had been spent on the lobby of the hospital. 'Just on the lobby, mind you,' he exclaimed. 'It's wonderful.' 'And how much,' I asked, 'did your patients' beds cost you?' 'I don't know,' he replied. 'I don't bother with such details.'"

My interpretation of this paragraph coupled with information acquired during a two-hour conversation with a representative of the Department of Education and Registration of the State of Illinois is the foundation for this article on how the patients you hope will come to your hospital are to determine the standards of your service. An attempt will be made by giving some possibilities and by citing certain known facts to show the necessity for a definite program of rigid and continuous inspection of the service your hospital offers.

Economy Has Its Limitations

Too often administrators of hospitals give more thought to the finances than to the standard of service of their hospital. The balance sheet too often is permitted to be the determining factor in providing the standard of service. Unquestionably economy has its merits, but it also has its limitations. When an administrator, in the name of economy, issues instructions that second sheets (sheets that have been soiled in use by private room patients) are to be used for ward patients, that is, transferred from beds in private rooms to beds in wards without laundering, it seems that he is making a fetish of economy. This is a rather extreme example, but too many extreme examples of economy are practiced in some hospitals. There are too many hospitals that are examples of the contrary, to prove that the hospital balance sheet can be adjusted satisfactorily at the expense of the standard of service.

What is your understanding of the term, "service," and what are you doing to improve the service of your hospital? What basic standards are you using?

For hospitals that have schools of nursing, it is an accepted fact that the backbone of service in these hospitals is the quality of service the student group is capable of giving. What are you doing to prove to your community that you are promoting a progressive program for your student nurses?

Standards for the Nursing School

First of all, is your school accredited? If not, then you are taking an unfair advantage of every student who enters your school. Your school should be on the accredited list or else it should be discontinued. If your school is on the accredited list, what are your educational entrance requirements for candidates? Are you still clinging to the state requirements of one or two years of high school work, or have you progressed to the place where you require a diploma from an accredited high school? If you are interested in giving the best possible service to your patients, one glance at the standard curriculum will convince you of the necessity of requiring a high school education accompanied by a diploma as the minimum educational requirement for the admittance of candidates to your school of nursing.

Granting that you have progressed this far, what provision do you have for the supervision and instruction of your students? Are you burdening the director of your school with incidental responsibilities that handicap her in her efforts to plan a progressive program for increasing the efficiency of the general nursing service of your hospital? Is your educational director qualified to be an educational director? Does she have the educational background necessary to make her a successful instructor? Does she keep abreast of the latest developments in her field? As administrator, are you making it your business to check these things, or are you permitting the program

*This is the fifth of a series of articles on small hospital problems. The other articles appeared in the April, June and October, 1929, and the January, 1930, issues of THE MODERN HOSPITAL.

for the school to slide along in a mediocre way? Do you have a definite program for the social and recreational activities of your students? Is your nurses' home supervised by the right type of a matron? Do you encourage a student council? What are you doing to promote interest in it? These are only a few of the many things that affect the nursing service and they have a definite bearing on the services of your hospital.

Next to the nursing service, the patient is most interested in the food service of the hospital. The first consideration is the appearance of the tray. Is it attractive? Does it have an appetizing appeal? Is the tray cloth clean? Are all the dishes of the same pattern? Is there evidence of care in and attention to the cleaning of the silverware and the glassware? How attractive is each serving of food?

The food service of the nurses, staff and students should be in keeping with the standard of service you expect of these nurses. The nurses' dining room should be attractive and an effort should be made to increase rather than to skimp the service. To permit a few minutes off duty during the morning or the afternoon for the nurses to have a rest period and, if they choose, a glass of milk or a cup of tea and a wafer, is well worth the time and expense. Not only is this true for the nurses but also for the laundry maids and the housekeeping maids. In some hospitals even the house service men are given time off for a relaxation period. The returns from such a policy are greater efficiency of service and increased loyalty to the hospital.

Two Types of Service

There are two types of service that every patient experiences: one type, such as the nursing, the dietary and the housekeeping services, the patient sees; the other type, such as the operating room, the birth room and the laboratory services, the patient does not see. Every care should be taken to maintain a high standard for the hidden service which is often more important to the welfare of the patient than is the visible service.

In your operating rooms are you enforcing at least the minimum requirements of standardization? You administrators that point to the certificate that announces to the patients and visiting public that your hospital is on the list of approved hospitals, do you honestly endeavor to follow the terms on which your hospital was placed on the list of approved hospitals or do you use this certificate as a shield to combat competition?

Are you taking advantage of the newer developments of equipment and technique or are you letting your operating room service carry on under the force of its own momentum? Do you ever send your operating room supervisor away for a postgraduate or an observation course that she may broaden her vision of service and thus increase the quality of service offered in your operating rooms? The same might also be said of the obstetrical supervisor and her department. Do you expect your obstetrical supervisor to give the anesthetic if one is necessary, or have you educated your staff doctors to demand a trained anesthetist for this service? If you have this enhanced service, do your patients know of it?

Educating the Public

And your laboratories? What are you doing to protect the interests of your patients, to safeguard them against the probabilities of error? Are you satisfied with a three, six or nine months' technician as head of your clinical laboratory, who at best must do a great portion of the work mechanically, or do you require a specially trained technician with a college education who has a background from which to grow in this highly technical work and who is, therefore, better equipped to handle the laboratory service with its many ramifications? What provision have you made for the surgeon to have the benefit of the services of a pathologist?

Are you satisfied in your x-ray department to do only radiographic work? Do you permit a technician of only a few months' experience to do this class of work? Do you ever go so far as to combine the responsibilities of the x-ray department and the clinical laboratory department under one supervisor and then hope to render a high standard and efficient service to the patient? Do you permit student nurses, in cases of emergency during the absence of the technician, to do the work of the technician?

First impressions are sometimes lasting impressions. How well trained for their respective duties are the members of your clerical force? Do your telephone operators have a pleasing manner? Is your bookkeeper trained to use the tact that is so often essential in handling patients' accounts? Does your record librarian possess the prerogatives so desirable for a person in this position? In other words, how much personal attention do you give to the selection and the instruction of your clerical personnel?

The elaborateness of the furnishings of the patient's room cannot be used as a yardstick for measuring the efficiency or quality of the service of the hospital. The most essential piece of equipment in the patient's room is the bed. An

extraordinary effort should be made to make the patient as comfortable as possible. When the finances permit, a mattress of some type of spring construction is desirable. A comfortable, overstuffed straight chair of spring construction in the seat and the back will add greatly to the comfort of the patient during the convalescing period. The dresser, bedside table, shades, draperies and other features of the room equipment need not be so elaborate.

If you are honest in your efforts, you will welcome and encourage a program of rigid and continuous inspection. It must be borne in mind that to-day the average person is not interested in the program for high standards of hospital service. Interest comes, usually, with the personal need of service. It is, therefore, at least for the present, the business of hospital authorities to carry on a policy for educating the public with regard to the standards of hospital service and then to provide the means by which these standards may be satisfactorily interpreted.

If you or I were away from home and it became necessary for us to use the services of a hospital, I am sure that there would be some investigation on our part before we decided definitely on any special hospital. Why not try to educate the public to the same degree of interest? We will all admit that the general public is becoming more hospital-minded, but the public interest in appreciating the standards of hospital service is far from paralleling its interest in using this service. Administrators of small community hospitals who are following a progressive program for higher standards of hospital service can well afford to encourage the public to join with them in this great work.

Night Sanatoriums for Tuberculous Workers in Russia

Soviet Russia is combating tuberculosis among its industrial workers by means of night sanatoriums, according to the *Journal of the American Medical Association*. Persons suspected of being tuberculous are sent to these sanatoriums by the municipal health service for observation and treatment, while at the same time they are allowed to keep their jobs. If the patient grows worse he is sent to a tuberculosis sanatorium.

When the factories close at 4 o'clock, the workmen, who have received instructions to go to a night sanatorium, do so. There they are given a bath at a temperature of 26 C. (78.8 F.). They receive hospital garments and are assigned to a room. After dinner, which is at 6 o'clock, patients walk in the park until 7 o'clock, when they reenter the sanatorium for an hour's rest in a reclining posture. Three times a week, from 8 to 9 o'clock, the patients do light work in the gymnasium. At 9 o'clock the patient is given a light lunch of tea, milk and bread. He must be in bed by 10 o'clock, and is allowed to sleep until 6:30 o'clock the next morning. Before he goes to work he is given a hearty breakfast. He carries with him to work a light lunch. The patient's diet is so arranged that he receives from 4,000 to 5,000 calories during the twenty-four hours. The stay of the workers in the sanatorium averages eight weeks, and sometimes nine.

Fully 95 per cent of the patients who are treated in the sanatoriums are dismissed as restored, the physicians in charge report. Twice a week the patients are given a careful medical inspection.

Hospital and Health Activities of the Commonwealth Fund

Devoting the major part of its income to activities in the fields of public health, preventive medicine, and mental hygiene, and to the enrichment of British-American relations, the Commonwealth Fund, according to its recently published eleventh annual report, made appropriations totaling $2,028,759.26 during the year ending last September 30. Of this sum, $1,366,674.26 was applied to special enterprises directed by the fund through its several divisions and committees, and the remainder, $662,085, was distributed among thirty-eight outside organizations, hospitals and universities in the form of grants for special purposes.

Among the year's developments were the opening of two new rural hospitals and the adoption of a new public health program in this country; the establishment of a child guidance clinic in London; and the completion of the fund's child health program in Austria—the six years of cooperative effort resulting in the cordial acceptance by the Austrian government of the responsibility for continuing practically all the activities conducted during that period. The last of a series of four child health demonstrations in the United States was within a few months of completion as the year ended.

With the opening of two new hospitals and the continued work of two previously established, four rural districts, one each in Tennessee, Virginia, Maine and Kentucky, are now provided with general hospitals of their own, as a result of the fund's activities. Additional hospitals have been opened in two more districts, in Kansas and Ohio, since the close of the year covered by the report. It is estimated that through this program some 410,000 people are enabled to enjoy near at home the safety and convenience of hospital service which in former years they had to seek at a distance or forego altogether. The objectives of this program are far wider, however, than the provision of these facilities, for these constitute only the central part of a general attempt to raise the level of rural health through stimulating the medical profession and the public in the localities, to develop practicable public health services suitably linked with the hospitals, and to foster an intelligent interest in preventive medicine.

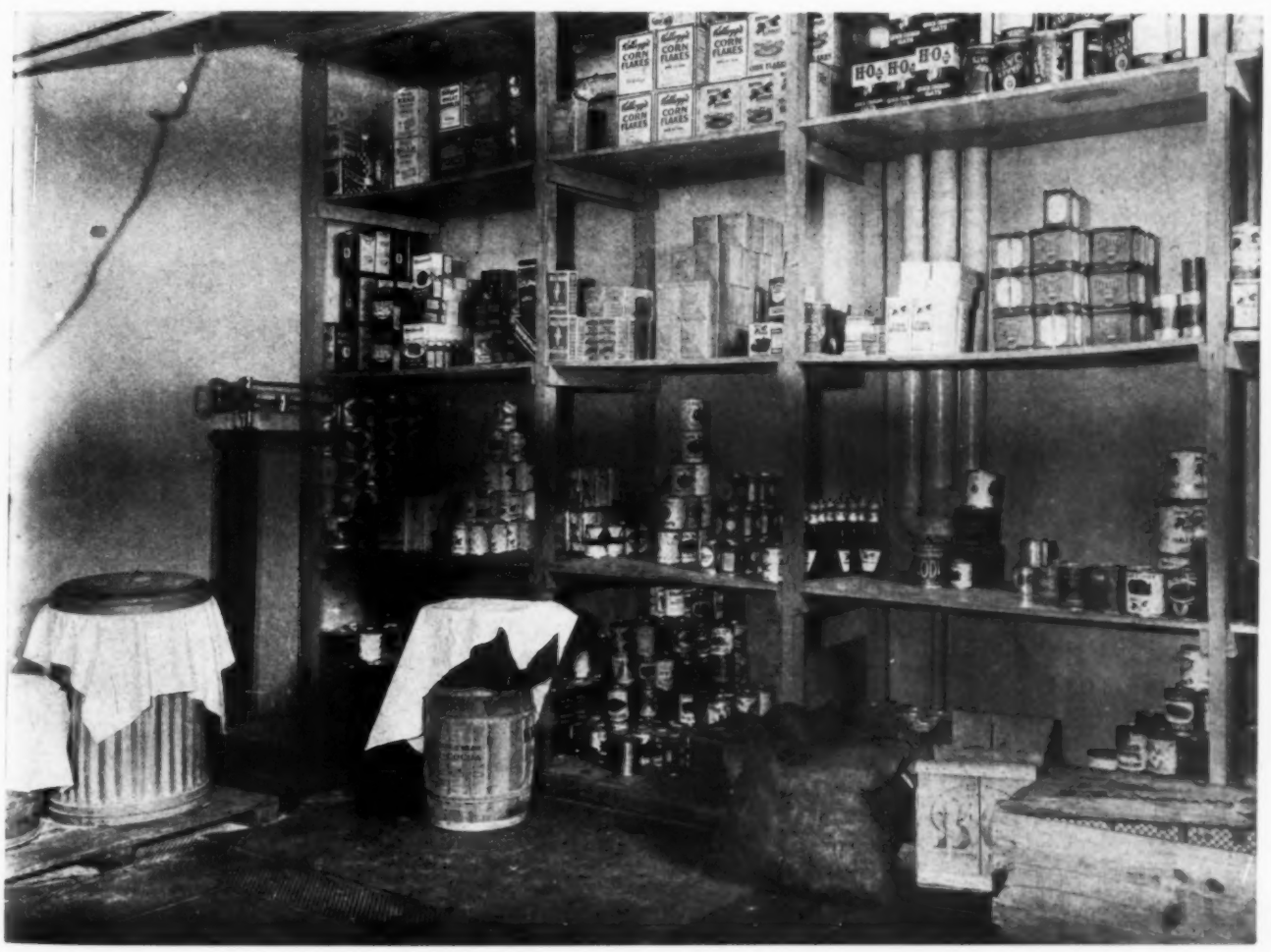
A grant of $50,000 was made to the Notre Dame Bay Memorial Hospital, at Twillingate, Newfoundland, supplementing previous grants to this hospital, the only one in 300 miles of sea coast. The institution serves 50,000 people, mostly fishermen and their families, and has been successful in enlisting their confidence and support. The local community has already contributed more than $80,000, besides much free labor. On one occasion 600 men gave two days' work to move a frame building three miles over snow and ice to provide a nurses' home.

Solving Problems of Food Service in a Community Hospital

By CHESTER FAZIO
Superintendent, Rockaway Beach Hospital, Rockaway Beach, N. Y., and
RICHARD RESLER
Architect, New York City

IN cities a rather impersonal attitude frequently exists toward hospitals as they are often city owned institutions or commercial enterprises and make no demands upon the residents of the neighborhood. Even in the case of hospitals maintained by churches or other charitable organizations, the general public does not feel closely allied to the institution. The patients of city hospitals are not likely to have many acquaintances in the vicinity of the hospital.

Community hospitals, however, are usually dependent upon yearly subscriptions and other voluntary contributions. The hospital is thereby frequently brought to the attention of the public through financial drives, benefits and personal solicitation. Items in local newspapers noting the stay of patients in the hospital and birth notices also focus attention upon the hospital and tend to develop a personal attitude toward the institution in the community. The patients generally live within a comparatively narrow radius and are acquainted with other residents of the com-



This food storeroom, conveniently located near the kitchen, has ample floor and shelf space.

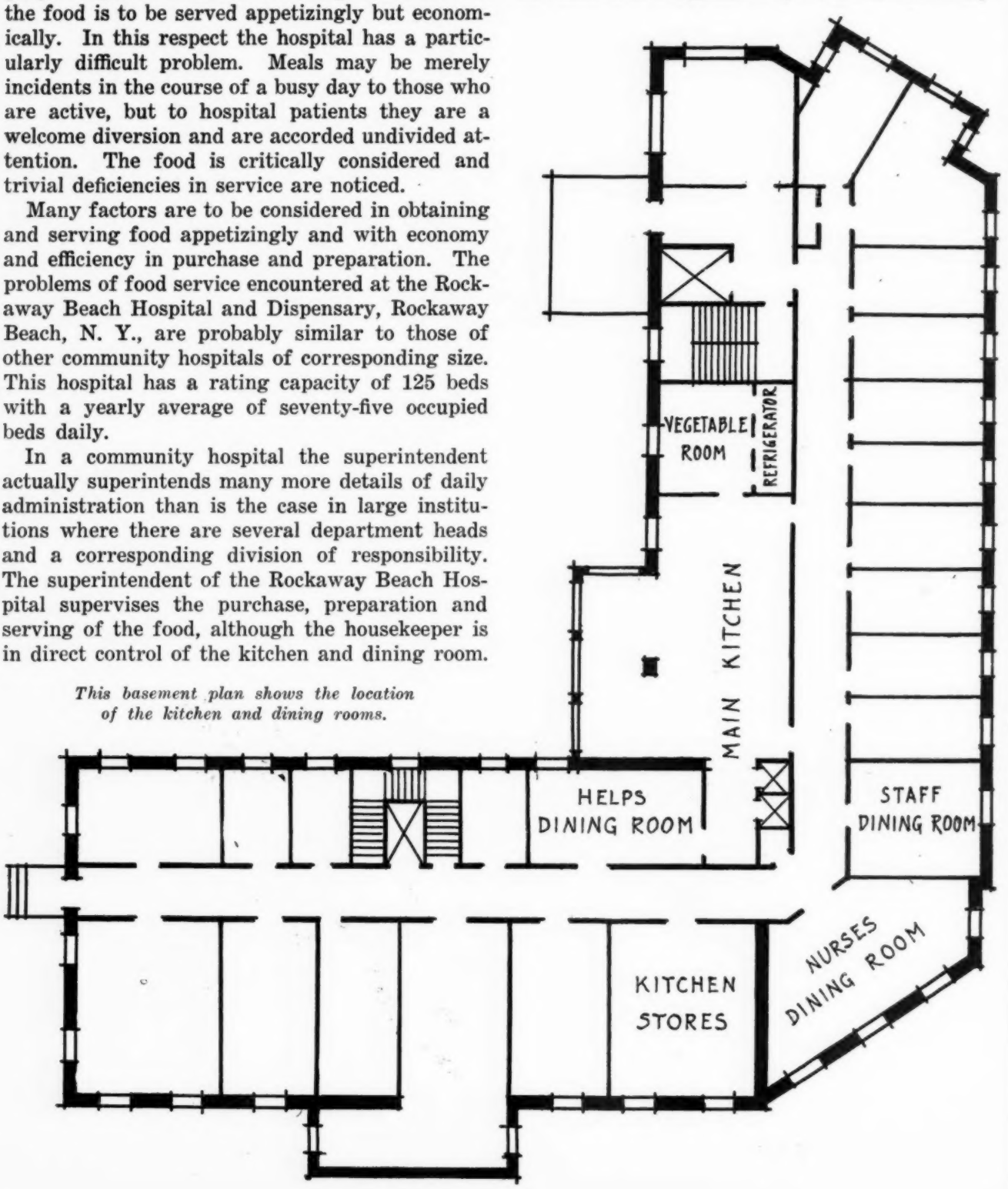
munity. The tendency to relate one's own experience or that of a relative or friend while in the hospital is common, and few people do so without commenting upon or criticizing conditions in the hospital. Food and food service are often criticized and this subject is of particular importance in the community hospital.

The preparation of meals for a number of people requires considerable thought and time if the food is to be served appetizingly but economically. In this respect the hospital has a particularly difficult problem. Meals may be merely incidents in the course of a busy day to those who are active, but to hospital patients they are a welcome diversion and are accorded undivided attention. The food is critically considered and trivial deficiencies in service are noticed.

Many factors are to be considered in obtaining and serving food appetizingly and with economy and efficiency in purchase and preparation. The problems of food service encountered at the Rockaway Beach Hospital and Dispensary, Rockaway Beach, N. Y., are probably similar to those of other community hospitals of corresponding size. This hospital has a rating capacity of 125 beds with a yearly average of seventy-five occupied beds daily.

In a community hospital the superintendent actually superintends many more details of daily administration than is the case in large institutions where there are several department heads and a corresponding division of responsibility. The superintendent of the Rockaway Beach Hospital supervises the purchase, preparation and serving of the food, although the housekeeper is in direct control of the kitchen and dining room.

The housekeeper, working in conjunction with the supervising nurses and under the supervision of the doctors, also acts as dietitian. At the time the hospital was opened the present housekeeper was employed as cook and served in this capacity for an extended period. In this practical manner she became fully conversant with diets and their preparation, as prescribed by the doctors, and was therefore assigned the position of housekeep-



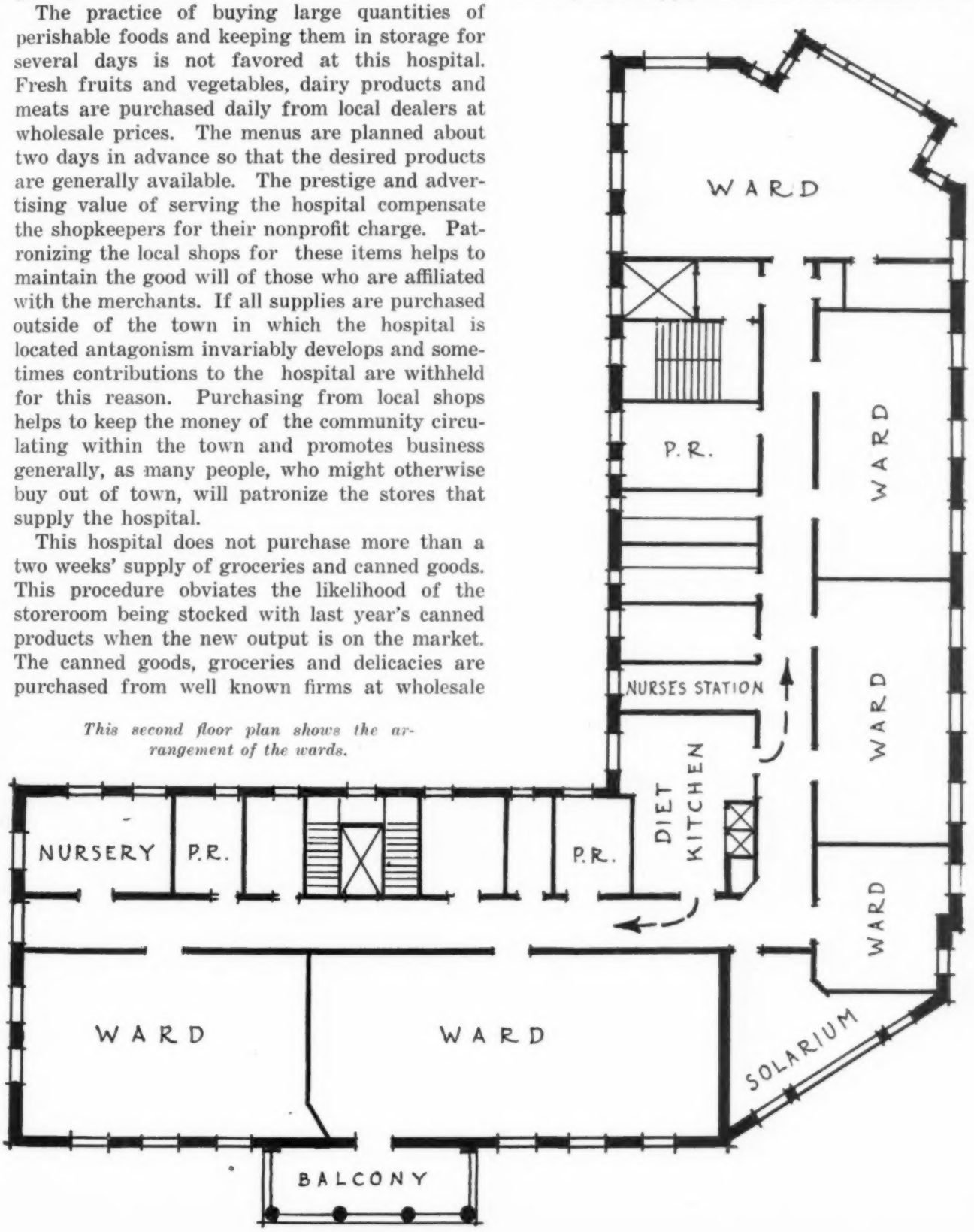
This basement plan shows the location of the kitchen and dining rooms.

er-dietitian. Her practical experience in kitchen routine and her knowledge of quantity requirements have been of great assistance to her as supervisor of this department. She also takes an exceptional and helpful interest in investigating new products and new methods.

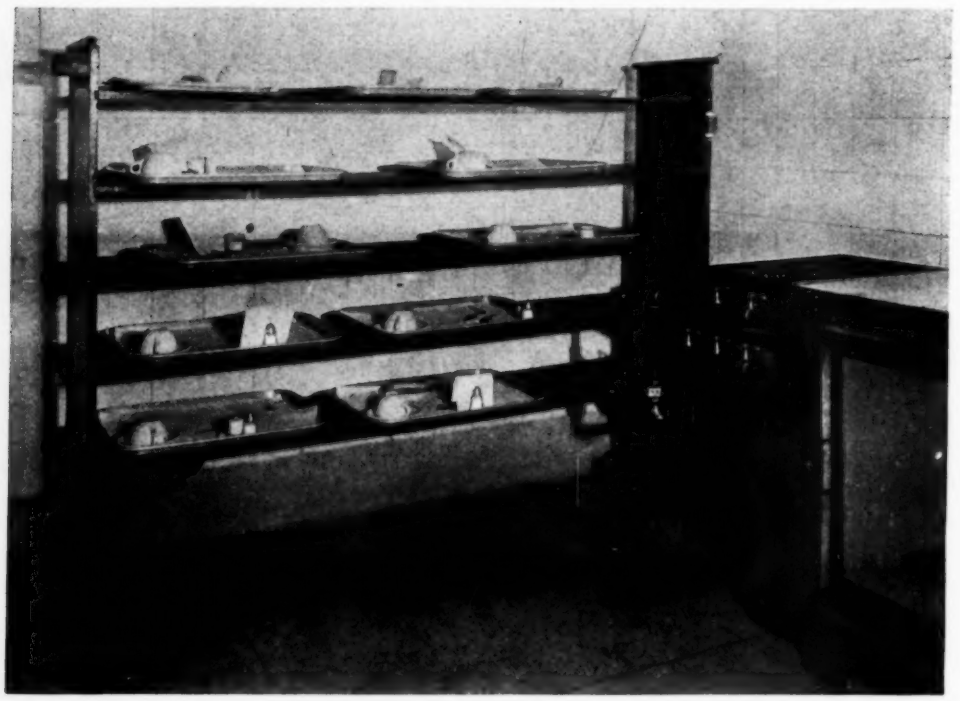
The practice of buying large quantities of perishable foods and keeping them in storage for several days is not favored at this hospital. Fresh fruits and vegetables, dairy products and meats are purchased daily from local dealers at wholesale prices. The menus are planned about two days in advance so that the desired products are generally available. The prestige and advertising value of serving the hospital compensate the shopkeepers for their nonprofit charge. Patronizing the local shops for these items helps to maintain the good will of those who are affiliated with the merchants. If all supplies are purchased outside of the town in which the hospital is located antagonism invariably develops and sometimes contributions to the hospital are withheld for this reason. Purchasing from local shops helps to keep the money of the community circulating within the town and promotes business generally, as many people, who might otherwise buy out of town, will patronize the stores that supply the hospital.

This hospital does not purchase more than a two weeks' supply of groceries and canned goods. This procedure obviates the likelihood of the storeroom being stocked with last year's canned products when the new output is on the market. The canned goods, groceries and delicacies are purchased from well known firms at wholesale prices. If large quantities were bought, the discount would be small and, in the opinion of this administrator, not sufficient to warrant this method of purchasing.

Some institutions have a contract with a firm for a year's supply of these commodities to be



This second floor plan shows the arrangement of the wards.



In the diet kitchens located on each floor, set-up trays are arranged, prior to meal times, and are placed on the tray racks in order of ward and room sequence.

delivered as required at a constant specified price. This price is to be effective whether current prices are in excess of or less than the one stated. It seems just as economical and more satisfactory for the Rockaway Beach Hospital to have a monthly contract, as the slight variation in prices is about equalized in the annual cost. On this basis the wholesale dealer is anxious to renew the contract each month and will exert every effort to retain the custom of the hospital.

The method of recording supplies has been simplified at this hospital as far as possible. The housekeeper enters in an order book a list of the supplies required and the various items are checked as received before being distributed to their proper places. Large institutions sometimes use card index systems and keep a careful record of each item issued, so that a record of the stock on hand and the supplies required is always available. This check also reduces the unaccounted for disappearance of food. In a small hospital this system involves more clerical work than is justifiable. When the food is purchased frequently and in comparatively small amounts, as it is at the Rockaway Beach Hospital, any unduly rapid depletion is soon noticed.

The dining rooms for the staff, nurses, interns and the help, and the main kitchen and storage rooms are arranged in a convenient group in the basement of the hospital, as shown by the accompanying plan. These rooms are only slightly below the street level and as the windows are large they receive not only daylight but also sunlight at some portion of the day.

The staff dining room, which also accommodates the special nurses, and the nurses' dining room are across the corridor from the kitchen and none of the doors are directly opposite. Both of these rooms are in the new wing so that it is not necessary for the nurses to use the same corridor as the help. The tables seat from four to eight people and the serving is done by two waitresses who perform other work in the hospital in addition to this service. The cafeteria method is satisfactory if proper provision can be made for this service. When the Rockaway Beach Hospital was originally planned this system was not in vogue to any great extent and practical provision for it could not be arranged when the wing was added.

Breakfast for the day nurses is served from 6:30 to 7 a.m. and for the night nurses, from 7 to 7:30. The day nurses have dinner at noon and supper at 5:30 p.m. The night nurses have dinner at 6 p.m. Another hot meal is served for the night nurses when they are relieved or come on duty, which is from about 10:30 p.m. to midnight. The food is prepared during the day and served by one of the men employees, whose hours are arranged to include this night duty.

The helps' dining room, which adjoins the kitchen, was originally intended as the food storeroom but under prevailing conditions it seems more advisable to use it for this purpose. The help eat after the patients are served but while the nurses are being served. They are seated at one large table and are waited upon by the assistant cook. Moderate portions are served in

order to prevent waste, but a second serving can always be had if it is desired. Any who have to eat at irregular hours ask the cook for food and wait upon themselves. The soiled dishes are collected by the assistant cook.

In order to maintain a constant and satisfied personnel it is essential that good food be served. In a hospital where the personnel does not number more than seventy there should not be too distinct a difference between the food prepared for the nurses and that for the help. The help are as important in the operation of the hospital in their domestic capacity as the nurses are in their professional capacity and therefore deserve consideration. At this hospital no distinction is made in the quality of the food served the personnel. Serving poor food or an insufficient amount tends to promote pilfering and results in general dissatisfaction. Much of the turnover in help, which is a serious problem to the community hospital, is due to poor food. The expense of a rapidly changing personnel is far in excess of the average yearly cost for supplying good food.

The Rockaway Beach Hospital has, for the twenty-five years of its existence, maintained the policy of making no distinction in the food served the personnel. During the seven years of his administration the present superintendent has found that this policy is satisfactory and economical. The records show that only a small percentage of employees stay a short time. In fact, some of the original domestic staff, employed when the institution was opened, are still affiliated with the hospital.

How Kitchen Is Arranged

The main kitchen is well arranged and the equipment is spaced for working comfort. Attention has also been given to the height of sinks, tables and other equipment as the help can work more quickly and easily without becoming tired if they are not forced to bend over in cramped, uncomfortable positions. The light and ventilation are good, although these important factors in the planning of a hospital kitchen are frequently slighted. Because of the efficient layout and attention to detail, the Rockaway Beach Hospital needs less kitchen help than many hospitals of similar size.

The kitchen staff consists of men employees only—a cook, an assistant cook and two helpers. No extra help is added during the peak load months, which occur in the summer as Rockaway Beach is a popular summer resort. The kitchen employees prefer a steady position at the hospital with consideration and fair pay to summer work at the hotels and boarding houses, where though the salary is slightly higher, the hours are longer. In winter the duties at the hospital are light, so the employees cooperate by assuming increased work in the summer. The cook has been with the hospital for four years and the assistant cook for two years.

The cook prepares the food with the assistance of the second cook. The assistant cook sees that the food requisitioned by the nurses is delivered to the diet kitchens. He also waits on the help at table. The two helpers prepare the vegetables, wash the dishes and clean the kitchen. It has not been found necessary to install a vegetable parer, a dishwasher or similar machines. The two helpers are able to handle all food preparation and dishwashing satisfactorily as there is no undue load at any period of the day, because of the timing of the meals.

Storeroom Is Spacious

The food storeroom is conveniently near the kitchen. There is ample floor space for sacks, crates or barrels, and shelves are built along two walls. The bottom shelf is sufficiently high to accommodate a packing case. The other shelves are regularly spaced to the ceiling, the first three being within easy reach. The superintendent and the housekeeper each have a key to this room, which is always locked. A third key is kept in the office for the cook in case supplies are needed during the absence of the housekeeper.

Ice is delivered daily at a yearly contract price. As the ice plant is not far from the hospital there is no delay in delivery in winter or in obtaining immediate delivery if an extra amount is unexpectedly necessary in summer. A cake of ice is sent to each diet kitchen every morning. Chopped ice is prepared in machines in the diet kitchens.

A mechanical refrigeration system is preferable to the daily purchase of ice, as it generally proves less expensive after the initial cost is met. Such systems provide a more constant temperature and dispense with the noise and dirt of delivery. The possibility of delays in delivery or of a shortage during hot weather may also be an important consideration if the ice plant is not near the hospital. Such provision was not made at the Rockaway Beach Hospital at the time the building was planned because of the additional expense and because it was understood that the hospital was to be supplied with ice without charge by someone interested in the institution. At present it does not seem advisable to install one of these systems as the price charged the hospital for ice is reasonable and as there are other more necessary alterations that have to be considered.

It is doubtful whether any hospital escapes unfavorable comments about food. In all hospitals there are probably more complaints and more justifiable ones about the temperature of the food when it is received by the patients than there are regarding preparation, quality and quantity combined.

Many institutions are using the central tray service system in which the trays for the patients are prepared in the main kitchen and then distributed to the various floors. The relative advantages and disadvantages of this system have been the subject of many discussions among hospital administrators. Some maintain that it is the most economical method, as meals can be served by fewer employees in less time. They claim that the use of vacuum dishes or heated tray carts assures the patients warm, appetizing food.

The Value of Central Tray Service

Others are equally emphatic in stating that they consider central tray service an impractical and unsatisfactory method. They contend that if ordinary tray racks and dishes are used the patients last served frequently find the food most unappetizingly cold and that this necessitates the expense of purchasing vacuum dishes or heated tray carts. They also cite the fact that the transportation of these carts requires the use of an elevator. If a hospital does not have a service elevator it means that a passenger elevator will have to be used for this purpose for several trips three times a day. Many hospitals with a bed capacity ranging from fifty to one hundred do not have more than one elevator. If the machinery is out of order the carts cannot be used, which results in additional work for the personnel and in the dissatisfaction of the patients. The amount of space necessary for the storage of these carts when not in actual use must also be considered.

This problem, however, like most others of hospital administration, must be considered in regard to the individual conditions of each hospital. It was decided that diet kitchen service would be more economical and practical for the Rockaway Beach Hospital. The details of serving from the diet kitchens have been so perfected that all of the seventy-five patients on a fully occupied floor can easily be served in ten minutes' time.

The diet kitchen on each floor is in charge of the supervising nurse of the floor who is assisted by a pantry maid. The maid prepares the trays prior to serving time, assists in serving, washes and puts away the china and silver and cleans the room. In this way the supply for each floor is always at hand and is more easily checked. Differently decorated dishes are used for the private patients and the ward patients. Heavy doors prevent the sound of the dishes annoying any patients who may have rooms near the diet kitchen. Each kitchen is equipped with an ice box, a steam table, work tables, cupboards, tray racks and a sink with large drain boards. The same provision for working space and comfort characteristic of the main kitchen is observed in the arrangement of the diet kitchens.

Preparing the Food

The food is prepared in the main kitchen and sent by a dumb-waiter to the diet kitchens. Two dumb-waiters have been provided to facilitate the serving of meals throughout the hospital at one time and to avoid the difficulties of breakdown in service. These dumb-waiters open directly into the main kitchen. The food for special diets is also sent from the main kitchen but not until after the regular trays have been served. Fruit, jelly, milk and other foods for between-meal snacks are delivered to the diet kitchens each morning. These trays are prepared for the patients by the supervising nurse as they are required.

The food is transported in bulk in containers that fit into the steam tables. These tables also have compartments for warming dishes. As heated dishes are an important factor in serving food at a desirable warmth, the steam is turned on in this compartment about half an hour before each meal.

How Trays Are Distributed

The set-up trays are arranged on the tray racks in order of ward and room sequence. This facilitates the distribution of the trays to the nurses, who carry one or two on a trip. It was found that when six or eight trays were placed on a tray rack or stretcher to be distributed at one trip five or ten minutes elapsed before the last patient was served and by that time the food was chilled. The present method of carrying only one or possibly two trays a trip not only makes it possible to serve the food while it is still tempting and hot but also permits the nurse to take a little time to see that each patient is comfortable. She can stop to arrange the pillows and see that the tray is not in a position that would be awkward for the patient. In her haste (hurried by the thought that waiting trays on a rack are rapidly cooling) a nurse has sometimes set the tray on the right side of a person whose right arm was bandaged or in some other position equally

exasperating to a helpless patient. A patient who must be fed is, of course, served last. If one section does not have its full quota of patients the nurse on duty will serve her patients and then assist someone else whose section may be particularly full.

The diet kitchens are at the angle of the new wing and the original building, as shown in the accompanying plan. This arrangement readily lends itself to the distribution of only two trays at a time without an undue amount of travel for the nurses. A door from the diet kitchen opens upon each corridor. These doors are wide and at serving time only the upper half is opened. The lower part is topped by a broad shelf that easily accommodates two trays. As the food is served by the supervising nurse, the maid places the trays on these shelves. There is no necessity for the nurses to enter the kitchen, and thus crowding and confusion during the serving of meals are prevented.

Special Diet Preparation

The physicians enter on a chart the diets they wish their patients to have. The nurse in charge accordingly makes out the food cards and sends her requisition to the kitchen. The chart is then posted over the steam table in the diet kitchen. A card with the name of the patient, the room number and the prescribed diet briefly designated as "liquid," "soft" or "regular" is placed on each tray. Cards of various colors are used to indicate different diets. As the trays are distributed by the nurses this card system serves as a double check on the diets served to the patients. The supervising nurse might neglect to omit all solid foods from a tray intended for a patient having a "liquid" diet or some similar error might occur. A nurse in the habit of caring for a particular patient, reminded by the diet card, will quickly note any such discrepancy and immediately set it right.

To ensure the main kitchen and the diet kitchens always being in the best condition possible, a committee of three of the medical board members makes a weekly inspection of these services. They also frequently inquire of the patients about the food and its service. On her morning rounds the supervising nurse of each floor and at night the head nurse both inquire about the patients' welfare, sometimes mentioning food service particularly. All complaints received are daily submitted to the superintendent in a written report in an effort to see that any complaints as to the food service may be quickly adjusted and to avoid any lasting dissatisfaction in this regard.

A City That Has Pioneered in the Convalescent Home Movement

That Birmingham, England, possesses the finest and best equipped convalescent homes in that country if not in the world, is pointed out in a special supplement to *The Hospital* which describes the homes in detail.

An organization known as the Birmingham Hospital Saturday Fund pioneered in the convalescent home movement. In addition to its activities in connection with convalescent homes, the fund also collects and distributes contributions to hospitals and allied institutions.

During 1928, these convalescent homes—Tyn-y-coed, Marle Hall, St. Ann's Orchard, Highfield Hospital, the Uplands and St. Tudno—cared for a total of 6,295 convalescents. The homes could not care for all those who sought admission and it was necessary to take 421 beds at other institutions.

The expansion of the work done by convalescent homes will contribute as much as anything else to the raising of the standard of health, the supplement points out, especially if such homes can be used before illness becomes serious, instead of afterwards.

Treatment in a convalescent home is an example not only of the modern view which takes cognizance of the fact that to return a sick person to inadequate home surroundings after operation or serious illness is to undo all the good that would otherwise be obtained, and that to keep a patient in the hospital long enough to complete a cure is to block the beds for other urgent cases. Also a period of rest in a convalescent home may result in the staving off of sickness and the need of hospital beds.

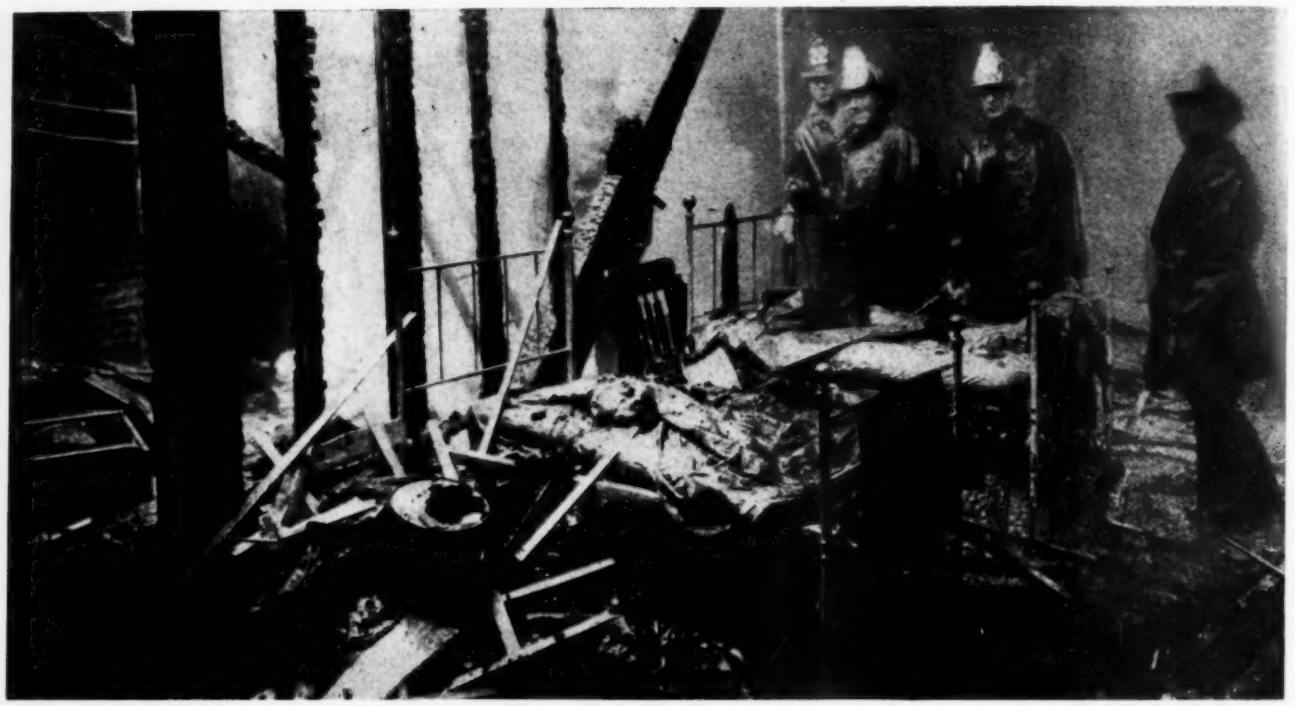
The extension of convalescence to those who cannot obtain proper convalescence in their own homes or who cannot afford to pay for such treatment elsewhere must obviously be of the greatest value to any city.

Forty Out of 100 Babies in New York City Are Born in Hospitals

According to a health inventory made of New York City by the Welfare Council recently it was found that there are seventy-eight hospitals with maternity beds and fifty-eight hospitals with maternity clinics. In the entire city there are some 2,600 hospital beds for maternity cases. If all of these beds were used to capacity throughout the year, the inventory points out, the hospitals could take care of 50 per cent of the births. Nearly half of these beds are in Manhattan, more than a third in Brooklyn and the remaining sixth in the Bronx, Queens and Richmond combined. The inventory shows that forty out of every 100 babies in New York City are now born in hospitals.

The seventy-seven maternity clinics outside of the department of health served in one year 36,000 patients, almost two-thirds of whom were in Manhattan. In addition 3,300 patients were supervised in the clinics of the department of health.

The effect of these extensive health facilities is reflected in the fact that New York City's maternal death rate is lower than that of New York State or of the United States and is considerably lower than the maternal death rate of Boston or Philadelphia. Chicago's maternal death rate is slightly lower than that of New York. New York City's maternal death rate is, however, considerably higher than that of England and Wales, Japan, Netherlands, New Zealand or Australia.



International Newsreel Photo.

A Recent Hospital Fire and the Lesson It Teaches

EVERY fire teaches a lesson. In this respect the fire that occurred in an Eastern hospital on February 23, 1930, is no exception. As hospital attendants and policemen groped through smoke and heat to save the lives of patients, they saw the need for safety precautions and noted the faulty construction that facilitated the rapid spread of the flames.

The hospital is one of a communicating group of joisted brick buildings, mainly from two to five stories in height. As protection at communications between these buildings is lacking, the group forms a single extensive area and is, of course, subject to one fire. Vertical openings consist of elevator, stair and ventilating shafts, a dumb-waiter shaft and a refuse chute. The stair shafts are open and the protection to the other fire openings cannot be considered as more than partial.

According to the investigation made by the insurance association, the fire apparently originated between the fourth and fifth floors in a brick enclosed refuse chute which extended from the basement to the top floor but did not extend through the roof. Service openings to the chute were equipped in each story with wood, metal lined non-automatic swinging doors. It was the practice to deposit floor sweepings and waste materials in the chute, collect them in the basement and burn them in the incinerator. The exact cause of the fire has not been determined. The fire was discovered at 6:10 a. m., by a nurse who was acting as telephone operator at the time. She immediately notified the fire department and almost simultaneously a box alarm was sent in by a passing milkman.

As the refuse chute did not extend through the roof, and as no other means of venting were provided, the fire mushroomed out on the fifth story and, burning through the fifth story ceiling, spread to the loft above and to the roof. Four alarms were sent in before the fire was brought under control and finally extinguished.

The lesson taught by this fire may be briefly summed up in the provision of the building code of the National Board of Fire Underwriters, which requires all shafts in top stories to be extended through the roof and terminated in a thin glass skylight or wired glass that can be automatically opened in case of fire. In this connection, it is also of interest to note that the regulations of the National Board with regard to incinerators provide definite requirements for the construction of such rubbish and refuse chutes. Rule 11 of these regulations provides as follows:

"Chutes shall rest upon substantial incombustible foundations. Enclosing walls shall consist of eight inches of common brickwork or six inches

of reinforced concrete. Chutes shall extend through the roof and shall be covered by metal skylight glazed with thin glass."

The type of door at the service openings in the chute involved by this fire was also unsuited for the purpose, and in this respect Rule 12 of the National Board regulations provides as follows:

"Each service opening in a chute shall be protected by an aproved self-closing Class B fire door or an approved chute door. Every such service opening shall be located in a separate room or compartment of incombustible construction, sufficient to afford at least one hour's resistance to fire and with openings protected by Class C fire doors."

Experience with chutes of this kind indicates that bulky material is frequently forced through the chute openings into the chute where it becomes wedged, thus causing the material to pile up between floors. In this particular case the chute was only 20 by 30 inches in diameter and as the fire appears to have started between the fourth and fifth floors it seems reasonable to believe that this is what happened. It is also possible that the chute was entirely full but a stoppage between floors seems more probable. The fire might have been caused by spontaneous ignition, a lighted cigarette or cigar stub or a discarded match, but in this case the original fire cause is only of incidental importance. If the chute had been properly constructed and protected, the spread of the flames would have been easily arrested and in all probability the fire would have been extinguished in its incipiency.

Past experience indicates and this fire verifies the fact that fires of the nature likely to occur within these refuse chutes are difficult to control by ordinary means. This is due to the large volume of smoke and the consequent difficult access for the fire department. The importance of automatically extinguishing such fires in their incipiency is therefore apparent.

The refuse and waste materials incident to a hospital are likely not to be conducive to sanitary conditions. For this reason it seems that even with all of the fire hazard features properly provided for, the chute is hardly the proper means for waste and refuse collection for a hospital.

International Newsreel Photo

Firemen are here seen running hose lines to upper floors of a hospital as rescuers and police remove 125 helpless patients, including fourteen babies, to safety. The flames spread throughout the two top floors before they were finally brought under control. Ambulances from other hospitals and private vehicles were used to carry away the rescued patients.

Abstracts of Hospital Literature From Foreign Countries

A Department Conducted by E. M. BLUESTONE, M.D.
Medical Director, Montefiore Hospital, New York City

THE Association of German Hospital Administrators held their twenty-third annual meeting in Danzig in the summer of 1929 under the presidency of Dressler of Jena. Danzig, which was severed from the German empire by the Treaty of Versailles, warmly welcomed the delegates and visitors to the meeting. Austria and Denmark were represented by Motzko of Vienna and Christensen of Copenhagen. Some of the topics discussed will doubtless interest American hospital administrators. The text of the papers read is given in *Zeitschrift für das gesamte Krankenhauswesen*, from October to December, 1929.

THE AUTHORITY OF HOSPITALS TO PERFORM AUTOPSIES

By City Councillor Dix, Leipzig

Deceased patients may usually be autopsied in German hospitals. It is generally known that autopsies are performed in a nonsecret manner. Autopsies are not illegal. The director of a pathological institute is not punishable for performing an autopsy. Nor are appropriations of corpses made in pathological institutes illegal.

Autopsies may be performed in Germany whenever the house regulations or rules for accepting a patient contain such an understanding. In Saxony the power of a hospital to perform autopsies is contained in the following law: "Autopsies may be performed on patients. The body, however, should be spared as much as possible in the process." In this case no permission of the relatives of the deceased is necessary; nor is any time granted them during which they may place objections to the procedure, as is the case in some hospitals of Austria, Hungary and Germany.

The formulation of house rules is left to the discretion of the hospitals. It would be purposeless to make the autopsy dependent on the previously expressed permission of the relatives. The relatives in some cases would not give consent soon enough to permit the autopsy to take place. The relatives are unfamiliar with the importance of the autopsy from a medical point of view. Moreover, the relatives are not in a state of mind readily to grant consent for an autopsy.

There is no universal sentiment against autopsies. Often they are urged. If one wishes to pay respect to the feelings of the relatives, one might grant them the power of objection. They should be allowed but a short time in which to object, however, since they are informed of the patient's decease immediately. The rules should then read: "Every dead body in this institution is examined. Exceptions are made only under special circumstances or when objections are made within twelve hours of death."

Autopsies are authorized by law in hospitals and in private homes in cases of accident, murder, suicide and similar medico-legal cases.

The nature and value of autopsies are often not understood by the laity. There is a confusion between the activities of a pathological and an anatomical institute. People think the bodies are dismembered and used for teaching students when this is, of course, not the case. At times the objections rest on religious grounds.

How Autopsies Are Performed

Autopsies are made with a single incision—chest, or abdominal, or both—as the case requires. The body is spared as much as is possible. Especially is care taken in those autopsies in which the brain must be removed. The same care is taken in cutting and in sewing up as at an operation. When the body is dressed, there is little or no indication that an autopsy had been performed. In some city hospitals autopsies have been performed before lay persons and relatives to demonstrate how carefully they are carried out.

Autopsies serve the purpose of increasing the diagnostic acumen of the physician; of establishing the presence of contagious and infectious disease; of establishing diagnoses in litigious and insurance cases; of informing families of the presence of hereditary disease, congenital anoma-

lies or inferior constitution, and of clearing up cases of death from accidental injury or occupational disease. The autopsy stands side by side with chemistry, physics, bacteriology, serology and histology as a factor in the advance of medical science.

The legislators of Saxony showed the importance of autopsies in a test case in which the representative of some large city wished to make the performance dependent on the express consent of the relatives, whereas previously it had been automatically performed within twelve hours if no objections were offered. The legislators decided the procedure was too important to the community to risk the change.

The period of grace should not be prolonged beyond twelve hours, since postmortem changes are likely to render the body unfit for study. If express consent of the relatives is requested, the number of autopsies obtained will be reduced. Further, relatives may not be reached who would gladly have given consent.

The Importance of Autopsies

Too short-sighted regulation will cause us to lose the priority we possess over foreign countries in this matter.

If there are no hospital rules binding the patient and relatives to autopsy, then express consent must be obtained if trouble is to be avoided. If persons are disposed to refuse permission, let them have a personal interview with the doctor who will persuade many to retract.

In Germany, luckily, people appreciate the value of autopsies and avail themselves of the knowledge it yields.

In the discussion that followed the chairman said that in the Canton Hospital, Zurich, Switzerland, every dead body is examined before burial. The director of the institute may make an exception if he sees fit. He said that the hospital should be very careful before it grants the twelve-hour period of grace, since, by the time autopsy is performed, the body may have undergone too much change.

Doctor Phillipsborn did not think it sufficient merely to allow twelve hours of grace in which to make objection. He thought the rules should be specifically called to the attention of patient and relatives before he is admitted. The rest of Germany is not prepared to adopt the measures used in Saxony, he said. In Austria they go still further. Every dead body in a public hospital is autopsied. He said that he had heard that in America they do autopsies per rectum.

Doctor Frankenstein said that hospitals should not seek greater liberties from the authorities for fear that their present liberties will be curtailed, and the express consent of the relatives made necessary by law.

Doctor Stade advised them to give the matter as little publicity as possible.

HOSPITALS AND PHYSICIANS
By Doctor Liek of Danzig

Doctor Liek speaks about the increasing popularity of hospitals in Germany. Twenty-five years ago the hospitals of Germany contained beds for 200,000 patients. They now contain almost 500,000 beds. The number of newly erected hospitals does not seem to keep pace with the increasing demand for beds. This means, of course, a decrease of work for practitioners, of which there appears to be a surplus. It thus happens in Germany, as in other countries, that hospital positions are eagerly sought by medical men, and jealously guarded when they obtain them. They desire to secure a place on the open staff of the hospital where they may attend to their private patients as a regular member of the staff. Practitioners are looking forward to the day when hospitals will be built for patients who are not seriously ill. The hospitals in Germany, as in other countries are the intellectual centers of the medical world. Furthermore, Liek demands the partition of the larger hospital wards into smaller units for the same reason that this is done in America. He is pessimistic about the system of social insurance that is now in force in Germany. The author adds an interesting observation—he thinks it is up to the practitioners, more than to anybody else, to bridge over the differences between themselves and the hospitals.

The discussions of the association are given in great detail in the *Zeitschrift für das gesamte Krankenhauswesen* and should be read by all who are interested in learning of the progress that is being made along this line in Germany.

THE HOSPITALS OF AMSTERDAM
By J. L. C. Wortman, M.D., Hilversum

This article in *Het Ziekenhuiswesen* describes four private hospitals: the Juliana Hospital, the Spinoza Clinic, the Central Israelite and the Portuguese Israelite.

The author describes the Spinoza Clinic as a "neutral" clinic. The others are based on "confessional" principles. The Juliana Hospital was founded by the Calvinists of the community.

The Spinoza began as an eye clinic at the same time the celebrated Professor Donders established the first eye clinic in Holland at Utrecht

fifty years ago. The Spinoza is now a general hospital but it still has a well attended out-patient department for diseases of the eye.

The Central Israelite Hospital is by far the best equipped of the four and is favorably situated in one of the spacious quarters of the town. It was founded by the Israelite community of Holland and is classed among the smaller hospitals of Amsterdam.

TREATING THE CHRONICALLY ILL IN GERMANY

By Doctor Waetzold, Berlin

In Germany they are discussing the question of how to deal with persons affected by chronic diseases. Should they remain in general hospitals, or are they to be kept in infirmaries that usually take care of only the aged and the infirm? Doctor Waetzold writes that if the present infirmaries could be changed into institutions containing departments for incurable patients, the task of hospitals would be considerably lightened.

A SALT FREE DIET

By Doctor Volhard, Frankfurt a. M.

In all cases of renal diseases and heart diseases in connection with dropsy the taking of salt is considered by Prof. Doctor Volhard, Frankfurt, to be dangerous. He requires these diets to be absolutely saltless. He allows food to be spiced and he does not object to using a substitute that offers no risk. Such a substitute, which gives a pleasant salty taste to all dishes, is now available.

THE EDUCATION OF NURSES IN AMERICA

By Heleen A. Melk, Instructor of Nurses, Municipal Hospital, The Hague

Miss Melk continues her impressions of the education of the American nurse in *Het Ziekenhuiswesen*. In this article some of the important data of "Nurses, Patients and Pocketbooks" by Dr. May Ayres Burgess are dealt with from a comparative standpoint. According to the quoted figures there are comparatively more nurses in the hospitals of Holland than in America. The author compares the nursing staff of the Presbyterian Hospital of New York with the Municipal Hospital in The Hague and shows that the executive positions are about the same in number, but that the Dutch institution has nine more student nurses. The nursing day in Holland is eight hours for student nurses. In the private hospitals of Holland the relation of nurses to patients varies from 50 to 100 per cent.

REPORT OF A MEETING ATTENDED BY THE EDITORIAL BOARDS AND EDITORIAL CONSULTANTS OF HOSPITAL AND MEDICAL JOURNALS

The chairman, Dr. J. C. L. Wortman, speaks about the requirements and the difficulties of editorial work which deals with the various departments of the hospital field. He stresses not only a knowledge of hospital construction and administration, but also the capacity for writing interestingly. "Humor in writing as in speaking acts like the vitamins in food," he says.

Bringing Convalescents Back to Health by Means of Golf

That golf may be used successfully in the treatment of convalescents has been proved by Dr. Frederick Brush, medical director of the Burke Foundation for Convalescents, White plains, N. Y., according to a study made by Dr. Peter V. Karpovich, department of psychology, International Y. M. C. A. College, Springfield, Mass., on "Some Psychological Effects of Golf."

Long ago Doctor Brush introduced golf as one of the recreational, therapeutic methods for his patients. He planned small courses, with 600-500 yards of playing distance. On some of the courses, only two, and even only one club could be used. The result of this experimental beginning was satisfactory.

A Handy Thermometer Tray for the Nursery

An arrangement that has found favor in the nursery of the Kansas City General Hospital, Kansas City, Mo., is a thermometer tray, according to the *American Journal of Nursing*.

This is a board two inches thick, smoothed and enameled white, in which tiny pockets have been bored to hold the thermometers when they are not in use. Strips of adhesive are run between the rows of pockets pasted to the wood; and the name of the baby using that particular thermometer is written on the tape. At the end of the tray larger holes or pockets are bored to hold jars containing soap solution, olive oil, applicators and clean cotton. A tray twenty by eight inches has four large pockets and places for forty thermometers.

As each thermometer is used, it is lubricated with olive oil. After use, it is cleansed with the soap solution. It is disinfected at the conclusion of each case.

Diaper racks have also been found to be a time and labor saver. These racks are triangular shaped. The front is thirty inches wide, and the short sides of the triangle are each twenty-two inches. The upright pieces of wood on the front corner are rounded, and are set a few inches apart that the ends of the cloth may lie flat. Solid pieces, about three inches wide, form the back upright support. The floor is solid, but the rack is open from all sides so that the diapers may be easily reached.

Both the trays and the diaper racks are made by the hospital carpenter after designs made by the nursery supervisor.

Effective Laboratory Service in the 100-Bed Hospital*

By F. P. McNAMARA, M.D.
Pathologist, Finley Hospital, Dubuque, Iowa

TEN or more years ago many of the smaller hospitals were considering the advisability of establishing pathologic laboratories. Today practically all of them give laboratory service of some kind. As a result medical diagnosis and care have been definitely improved. Of course, only a part of the improvement is due to the laboratory. The development of the x-ray department, which has been concomitant with that of the laboratory, must also be considered. Then, too, supplementing the service of each laboratory has been the improved medical and nursing care that has naturally followed.

One indication of the value of the laboratory is the use that is made of it by the members of the staff. Finley Hospital, Dubuque, Iowa, makes 12,000 laboratory examinations each year—an average of approximately six tests per patient. There has been a steady fall in the number of days spent by patients in our hospital since the laboratory was instituted. In the last hospital year the average was eleven. This compares favorably with an average of twelve and a half reported by Dr. M. T. MacEachern, associate director, American College of Surgeons, in the hospital standardization survey of 1929.[1]

There is no longer any question of the desirability of a hospital having a laboratory. There is rather a need of emphasizing the broad scope of the service that the laboratory, especially that of the smaller hospital, should give. It is my aim to tell how the laboratory may play an important part in bringing about a general improvement in medical practices in the 100-bed hospital.

*Read at the meeting of the Iowa Hospital Association, Waterloo, Iowa, February 27.

[1] MacEachern, M. T., Summary of the 1929 Hospital Standardization Survey, Bulletin of the College of Surgeons, Vol. 13, No. 4.

These specimens in the Finley Hospital Museum were displayed to the public on Hospital Day, 1929.

The service that the laboratory should render may be classified under three main headings: (1) that concerned with the welfare of the patient; (2) that concerned with determining the causes of failure in treatment; (3) that concerned with the advancement of the science of medicine. The primary function of the laboratory has to do with the manifestations of disease in the individual. It aids the clinician in diagnosing "the presence, nature, source and progress of disease in the human body." In other words the main objective of the laboratory studies is to get the patient well as quickly as possible. It will be attained best when the laboratory work is directed by a full-time pathologist who has an adequate number of trained assistants and the proper equipment.

The Status of the Pathologist

The pathologist should be on par with physicians practicing clinical medicine. Many of the smaller hospitals find difficulty in getting trained pathologists because few men take up a pathology as a life's work. This situation will be overcome when the pathologist receives anything like adequate compensation for the work he must do.

The scope of the clinical work that should be carried on in the laboratory has been outlined by the council on medical education and hospitals of the American Medical Association as follows: hematologic—blood counts, blood groupings and coagulation tests, and tests for blood parasites in general; biochemical—qualitative and quantitative analyses of urine, gastric contents, body fluids, feces, intestinal contents and cerebrospinal fluids and renal and hepatic function tests and basal metabolism; bacteriologic—bacteriologic diagnoses and preparation of vaccines and blood and body fluid cultures; serologic—serologic diagnoses and agglutination, complement fixation or precipitin and lysis test; pathologic—preparation of paraffin, celloidin or frozen sections, microscopic and gross pathologic specimens and necropsies; parasitologic—protozoal and zoological diagnoses. To these, studies in electrocardiography might well be added.

There has been some discussion as to whether all examinations should be done as a routine or whether specific tests should be ordered by the attending physician. The value of routine tests is admitted. The amount of routine that can be efficiently cared for will be governed by the number of assistants in the laboratory. As they usually are few in number, the amount of routine work must necessarily be limited. Nevertheless, certain tests should be considered routine procedures in all hospitals, that is, blood counts, smears and Wassermanns, urinalyses, examination of placentas and tissue removed at operation, and, in a given case, any other obviously required examination, such as the culture of a carbuncle, of a discharging ear, or of infected eyes.

Other routine tests may be those arranged for between the pathologist and the physician whose practice is so limited that he can outline the work he wishes done on all of his patients. If the clinician were familiar with all laboratory procedures, the ideal method would be to have him order the work that he believes the patient requires. It is my experience that most physicians are familiar with merely the simplest tests. Consequently these are the only ones they order and, as a result, the patient gets the benefit of but one man's knowledge. Under present conditions, therefore, I feel that in many cases the pathologist should be called as a consultant in order that he may suggest desirable examinations. The patient then receives the opinions of at least two men who have different viewpoints concerning disease.

If such consultation service is to be efficient, a prerequisite is that the clinician shall have taken a careful history and made a complete physical examination of the patient before he consults the pathologist. This cooperation between the clinician and the pathologist can only be of benefit to the patient.

Let us now consider the laboratory studies of the cases that die. While they make up only approximately 5 per cent of the admissions, their consideration is of the greatest importance in any attempt to increase the efficiency of the medical service of the hospital.

The Necropsy as a Test of Progress

A good index as to whether the members of the staff possess the scientific attitude towards medicine is the percentage of necropsies done in the hospital. The necropsy is one of the best possible checks on the accuracy of the diagnosis made by the clinician, the roentgenologist or the pathologist, or all three. It has been shown by Karsner [1] that in one of the better hospitals of the country there were 8 per cent gross errors and 60 per cent minor errors in diagnosis. Cabot [1] reported that over a ten-year period in a well known Eastern hospital, 47 per cent of the diagnoses were partially or wholly wrong while Oertel [1] said that in a large public hospital only 22.3 per cent of the diagnoses were entirely correct. I do not know of similar studies made in a 100-bed hospital in this country, and while I have

[1] Karsner, Cabot and Oertel, cited by Sweany, H. C., The Necropsy in Medical Education and Study, Archives of Pathology, Vol. 9, Part 1, No. 1, p. 129.

not reviewed our necropsy records with this point especially in mind, I believe the gross error in diagnosis is about 33 per cent.

The number is important, but the type of lesion undiagnosed or incorrectly diagnosed is of even greater importance in judging the accuracy of clinical diagnosis. The lesions misinterpreted or missed entirely in our small series included cirrhosis of the liver, pelvic abscesses, thrombosis of the coronary arteries, valvular heart disease, gummata of the brain, abscesses of the kidney, hydronephrosis, appendiceal abscess, pulmonary infarcts and metastases, carcinoma of the ovary, lung, gall bladder, kidney and testis. If lesions

The laboratory in St. Mary's Hospital, Wausau, Wis., a sixty-bed hospital.

producing such gross changes are not detected one can imagine how many minor changes, sometimes very important as regards the patient's welfare, are missed.

All medical authorities are agreed that too few necroposies are done in this country. The New York Academy of Medicine reports that the ratio of necropsies in hospitals in Europe to those of America is as 62.7 per cent to 7.3 per cent, or about a nine to one ratio. For the country at large Karsner estimates the number at 0.7 per cent. For the 100-bed hospitals of this state, I am fairly certain that the average will be less than 5 per cent.

Several factors are concerned in the failure to obtain a larger percentage of necropsies. Prejudice against them upon the part of the public and opposition on the part of undertakers are two important ones. These, however, can be overcome by education and cooperation, respectively. The necropsy must be conducted with the same dignity and consideration as if the patient were alive. The body must be given to the undertaker in even better condition than if no examination had been made. The third and main factor is what I may charitably call apathy on the part of the medical profession. If a physician desires necropsies he will obtain them in a large percentage of cases. We have one physician on the staff of Finley Hospital who consistently obtains 100 per cent, although the average for the hospital is only 15 per cent. The reasons for this apathy on the part of many doctors are lack of appreciation of the value of necropsies, fear of exposure of errors and lack of time to attend the examinations. The last two reasons are of minor importance, and if every one concerned with hospital administration learns to appreciate the value of necropsies, I am sure there will be a more concerted effort to obtain them.

The American Medical Association, with a full knowledge of the value of postmortem examinations, requires 15 per cent in hospitals where interns are trained. It seems that the association believes that the type and standard of medical practice can be judged with some degree of accuracy by the necropsy percentage. The value of necropsies is also appreciated in our medical

school where there is keen competition to keep the percentage high. I believe the average of necropsies for the teaching hospitals of the country will approximate 60 per cent or more. Their value has been stated as follows by Winternitz: "The autopsy furnishes the only means of teaching the student pathological anatomy; it controls diagnosis and therapy; it is the only reliable evidence on which vital statistics may be based; it is a constant source of problems necessary for the advancement of medicine." Winternitz[1] preferred to their value in medical schools. For self-evident reasons, it is admitted that the necropsy will be of greater value in university hospitals.

The Duty of the Small Hospital

There are only 18,000 beds in hospitals connected with medical schools. Probably one fourth of the other 830,000 are in hospitals with 100 to 150 beds. It is obvious that while the smaller hospitals cannot do the intensive work of the teaching hospitals, a great deal of material goes through them each year that can and should be utilized for the advancement of medicine. Aside from pure research, the necropsy should have an even greater value in the smaller hospital than in larger ones.

In the university hospitals, most patients are studied by several individuals and one person's diagnosis is checked to a certain extent by the diagnoses of others or by instruments of precision, even without considering the high percentage of postmortem studies. The staff of such a hospital is better organized and there are periodic accountings of the work of each department as well as of the hospital as a whole.

In smaller hospitals, the staff is often loosely organized, and in most of them the relationship between the patient and the doctor is essentially the same as in the home. The hospital often can do little to improve that relationship, except in a general way. It is true that if the staff conferences carried out their primary purposes of thoroughly reviewing the clinical work of the hospital, considerable improvement would result. My experience has been that when the deaths are considered in the staff meetings the physician tells the clinical history, gives his diagnosis, outlines his treatment and theorizes as to the cause of death. He presents all the determined facts, but how often essential facts are lacking can be amply demonstrated by attendance at a few postmortem examinations. Discussion is decidedly limited because no one has enough facts to doubt the diagnosis made and it is difficult to criticize treatment or results if you consider the diagnosis complete and correct.

In those cases that have been necropsied there is possible an exact anatomical diagnosis. Facts replace suppositions and therefore the clinical investigation may be reviewed and discussed with some expectation of arriving at definite conclusions as to how the medical service can be improved. For this reason the clinico-pathologic conference should be the basis of every staff meeting in the smaller hospitals.

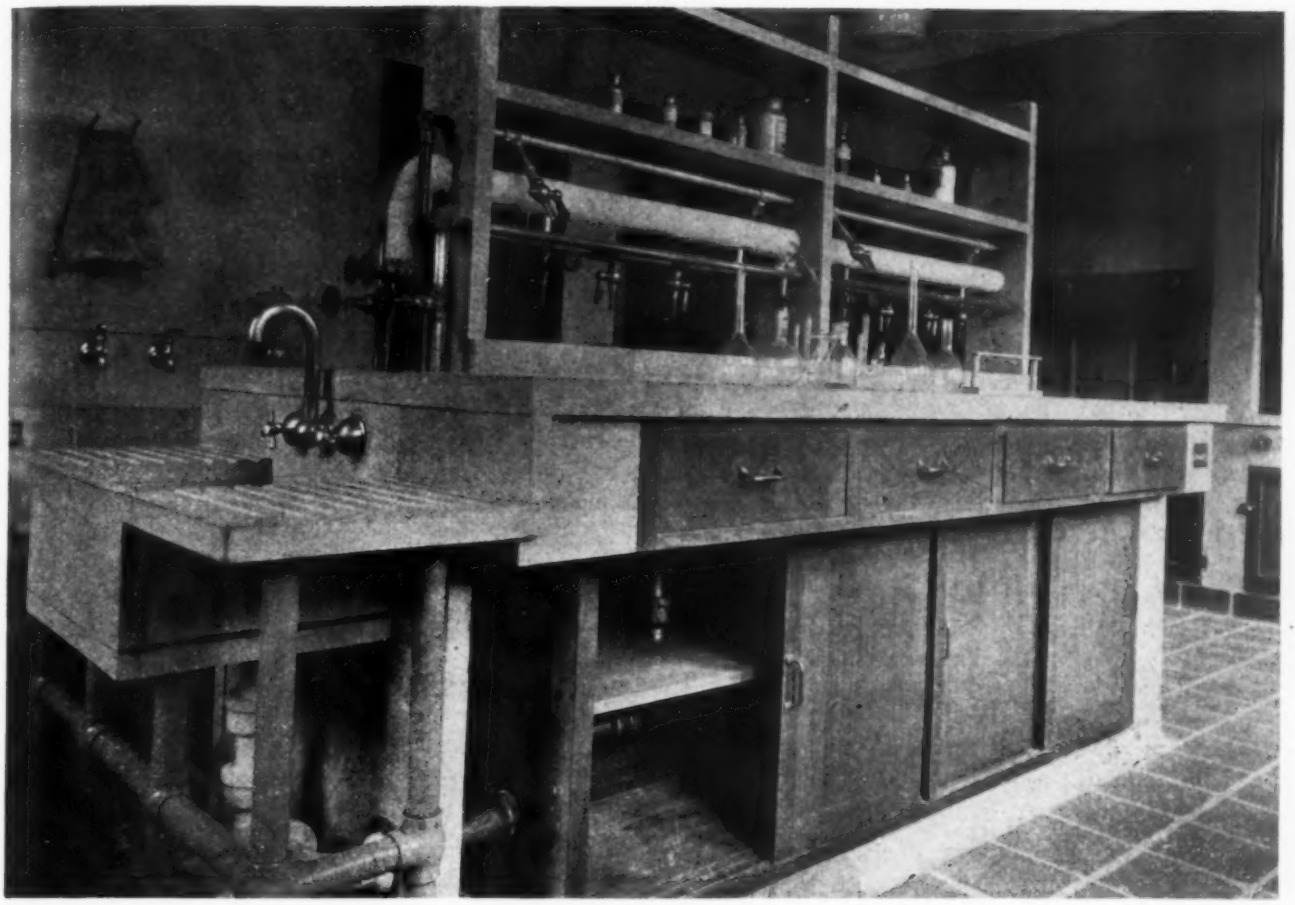
In such a conference the clinician gives the history and the results of physical and laboratory examinations, the roentgenologist demonstrates the x-ray films and, finally, after all the evidence has been presented, the question of the diagnosis is discussed by the staff. The clinician gives his diagnosis and treatment and describes the results. The pathologist then gives the anatomical or surgical diagnosis and demonstrates the specimens obtained at operation or necropsy. The literature on the condition under consideration is briefly reviewed by either the clinician or the pathologist. Finally the case is again reviewed with the single aim of obtaining better service in the hospital. Such a conference is one of the most valuable methods of improving medical practice in the smaller hospitals. It teaches morbid anatomy, improves diagnosis and increases the scientific knowledge of medicine. It is a practical method, available in every hospital, by which the physician may continue his postgraduate training.

The Need for a Museum

The preceding paragraphs outline briefly the main activities of the pathologist. There are others that have not been developed as well as they might be in the smaller hospitals. One is the development of a museum; another is publications. Every small hospital can and should have a museum. It is true that it costs money and takes considerable effort to preserve and mount specimens properly, but it is well worth while. The museum at Finley Hospital contains 350 specimens. While most of them illustrate common lesions, there are also many unique examples of morbid anatomy.

Every small hospital obtains similar specimens that should be preserved. The main use of the museum is to aid the doctor to renew acquaintance with the gross anatomical changes that result from disease. If he desires, he may study the microscopic slides that are prepared from the specimens and filed. Another use for the museum is in teaching nurses the fundamentals of pathology. The specimens are also used in conjunction with papers read before the meetings of the staff

[1] Winternitz, M. C., The Rôle of the Autopsy in the Medicine of To-day, reprinted from Johns Hopkins Hospital Reports, Vol. 18.



The laboratory in the Chester County Hospital, West Chester, Pa., which has 115 beds.

and county medical society. On Hospital Day we open the museum of Finley Hospital to the public and feel that this is of distinct educational value because the public obtains some idea of the infinite variety of the manifestations of disease.

It has been shown how the laboratory can stimulate the work of the hospital along various lines. It should be obvious, from such activities, that material will be obtained that is worthy of publication. We have published, somewhat irregularly, "Finley Hospital Clinical Case Histories." This publication is mailed to all physicians in the territory around Dubuque. In it interesting cases are described and illustrated with photographs of the surgical or postmortem specimens, and the literature on the subject under discussion is reviewed. It will be evident that the publication is simply an elaboration of scientific activities of the medical staff. Every small hospital should publish some of its proceedings either in a monthly, quarterly or annual form. Such a publication cannot but stimulate the staff to greater effort in the practice of scientific medicine. If for no other reason than the review of the literature required, it will be well worth while.

This paper would be incomplete without some reference to the financial aspects of the laboratory. Undoubtedly the laboratory will attain its greatest usefulness if it is partly or wholly endowed. Unfortunately, the endowed laboratory is exceedingly rare in 100-bed hospitals. One often wonders why philanthropists, who desire to lower the cost of medical care, rarely if ever consider such a benefaction, although the 100-bed hospital renders service to a large proportion of the sick and injured. Practically all 100-bed hospital laboratories must depend for support and development upon fees received from patients in the hospital or from work done for out-patients. The laboratory income must be sufficient to meet all current expenses, to care for replacements and to acquire a reasonable amount of new equipment.

We have found the method of collecting a routine fee from all patients the most satisfactory. In addition, we make extra charges for tests requiring unusual time and equipment, such as the preparation and diagnosis of microscopic tissues, basal metabolism tests and blood chemistry, but it is uncommon for a patient to pay more than $10. There is no charge for consultation in the hospital, and necropsies are done free of charge except in medico-legal cases. Under this system of charges, the patient who is in the

hospital a short time pays proportionately more than one who stays longer, but this seems to be the fairest way to distribute the burden. For obstetrical patients we charge $5 for all the laboratory work that may be required over a period of ten days.

Charges Are Reasonable

Possibly, later, it may be feasible to make a flat rate for all patients and thus avoid the so-called extra charges that are sometimes misunderstood by the patient. At present the great variation in the amount and character of the work demanded by different physicians makes it impossible. That our charges are reasonable is indicated by the fact that the average hospital bill of our first 100 full-pay patients in 1929 was $45.12, as compared to an average of $71.99 for 100 other general hospitals. Finley Hospital had a lower average bill than ninety-four of the other hospitals.[1]

In this paper I have endeavored to show how every small hospital offers opportunities for self-improvement to the members of the medical staff, if the available means are fully utilized. It is generally acknowledged that scientific medicine is at its best in hospitals connected with medical schools. While financial reasons prevent the same degree of development in the smaller hospitals, their service in the actual clinical practice of medicine should approximate that of the teaching hospitals. To do so, one essential is a full-time pathologist with adequate assistance and equipment. The pathologist's first concern shall be to aid the clinician in arriving at an exact diagnosis in every case. He shall do so by being able to perform all necessary examinations and by acting as a consultant when requested by the attending physician.

Another duty of the pathologist shall be to stimulate improvement in the standard of the medical service of the hospital. Partly because of his investigations in the clinical laboratory, but largely because of his studies in surgical and postmortem pathology, he is in an especially favorable position to judge the character of the service and to suggest means of improving it. The most practical method by which improvement may be brought about is by means of the clinico-pathologic conference. The higher the percentage of necropsies, the greater will be the increase of scientific knowledge obtained from the conferences. Therefore, it should be considered a duty by all concerned with the administration of the hospital to increase the number of necropsies. The pathological specimens received are of scientific value and should be preserved carefully in a medical museum.

Finally, the community expects the best medical care possible in its hospitals, and it will support any reasonable means of improving that care. While, on first thought, the development of the laboratory appears as an added expense, it actually aids in lowering the cost of sickness by encouraging more accurate diagnoses and by helping to decrease mortality and reduce the number of days spent in the hospital. If the community realized the saving thus made it would demand not simply a laboratory, but the best laboratory possible. The administrators of the hospital represent the community. They should recognize the value of the laboratory service and develop it in every way possible.

[1] McNamara, J. A., and Parker, J. S., What 10,000 Patients Actually Paid in 100 Hospital, THE MODERN HOSPITAL, January 1930, Vol. 34, No. 1.

Are Student Nurses Giving More Than They Are Receiving?

Are student nurses paying in service more than the value of the instruction they are receiving?

Dr. E. C. Hadley, writing in the *Nursing Times*, London, thinks so, and he points out that the money necessary to take this load off their shoulders would pay splendid dividends in the improvement of the nursing service that is performed by graduates of the nursing schools.

Hospitals conducting nursing schools should take definite steps to relieve the instructors of an undue burden of administrative duties, Doctor Hadley believes, and to relieve the students of most of the drudgery now required of them, such as sweeping, scrubbing floors, shifting beds, mending and washing dishes. This work should be done by porters and maids which would give the students more time to attend to their patients. It would give them also an opportunity to receive more instruction in the art of nursing, which is best had at the bedside in an atmosphere of calm and concentration.

Nurse Registration Now Required in Pennsylvania

By September 30, 1930, all graduate nurses in Pennsylvania must have taken state board examinations and become registered, according to a recent ruling. If they have not done this, they will be listed as practical nurses on the directories throughout the state. This is reported in the *Trained Nurse and Hospital Review*.

To make the taking of these examinations less difficult, many hospitals are conducting "refresher" courses for those graduates who have been out for some time. These courses will consist of reviews of required subjects, observations of up-to-date nursing techniques and special medical lectures.

Because the law will affect many who are married and not practicing at this time but who may find it necessary to continue active practice at some future time, each nurse is asked to inform all other nurses in the state who she feels would be interested.

Practical Administrative Problems: Saving Money in the Housekeeping Department

By JOSEPH C. DOANE, M.D.
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THE housekeeping department of the hospital is not one that is in any measure spectacular in its organization or functioning. A clean, orderly and well kept hospital is a condition that is taken for granted by the public generally. Yet when such qualities are not found, their absence often rightfully arouses criticism. In fact, the quiet, efficient housekeeper and her staff rarely receive the amount of credit or acclaim due them. Yet it may be said with utmost truthfulness that there is no other department in the hospital that is more of a basic necessity than a well organized smoothly conducted housekeeping department of this type.

This department concerns itself with the manifestation of the homely virtue of cleanliness in which dusting, scrubbing and wall and window washing are tiresome, trying, yet most essential activities. The importance, therefore, of good housekeeping in relation to the care of the sick cannot be overemphasized. It is manifestly impossible to produce the best results from the medical and nursing services if the patient is not surrounded by a clean, sanitary and pleasant environment. The responsibility for providing such surroundings falls in a large measure upon the housekeeping department.

In estimating the efficiency of such a department, there must be examined the organization and number of personnel used for performing this work, the approximate cost in salaries and the end result which consists of a state of cleanliness and orderliness in the institution under inspection.

Maintenance Department Should Help

But the success of the endeavors of the personnel of the housekeeping department is closely linked with the activities of the maintenance department which concerns itself with repairs and replacements of hospital property. The incentive for maintaining a high degree of efficiency on the part of such of the hospital personnel as answer to the housekeeper is frequently lacking when an institution is not in a more than average state of repair. Window sills, walls, door jambs and floors that are innocent of paint do not stimulate the same energetic effort on the part of a cleaner as do those that present an immaculately white appearance. When plaster is hanging in shreds from walls, it is neither possible nor probable that the porters and wall washers will put forth their best efforts to clean them.

Keeping the Hospital Clean

On the other hand, institutions are frequently observed that are old and in but a passable state of repair. But they are immaculately clean. In such hospitals, the housekeeper deserves much more credit than does one who is employed in an institution that is new and in good repair. There must be established a close relationship between these two important institutional departments if the hospital is to represent at all times a sanitary and hygienic place for the treatment of disease.

The ease and success with which the housekeeping department performs its work will depend on many factors besides the size of the staff and the amount of compensation its members receive. A new institution can be much more cheaply maintained from a housekeeping standpoint than an old one. A unit plant has its advantages over one that consists of detached buildings. The hospital in which provisions for proper housekeeping have been installed at the time of construction is, of course, easier to maintain than one in which many of these important details were neglected when it was planned.

In making plans for a new hospital many relatively inexpensive details may be included which, if inserted later, will prove expensive. These details will decrease the expense and increase the efficiency of the work of the housekeeper. Round corners are necessary and cove bases are advisable in the construction of wards and rooms. It is but a matter of primary consideration to insert the proper waterproofing in pipe sleeves and to be certain that all floors upon which water will be used as a cleaning medium are of the type that will not be harmed by it. Terrazzo, good linoleum or some of the efficient composition floorings on the market are types of construction

materials that are not harmed by the use of water in cleaning.

All informed hospital administrators and architects provide for the future washing of walls. Certain types of hard cement covered with enamel paint are commonly employed for this purpose. The absence of right angles at wall and ceiling junctures favors ease in cleaning. Too frequently when a new hospital is ready for occupancy it is discovered, much to the consternation of the administrator, that it is impossible to wash windows without removing insect screens. Such a procedure is difficult in multistoried buildings and usually results in windows remaining unclean for long periods of time unless a contract is let outside the hospital for this work. Certain types of screens hinged at the top have been found efficient, and in some instances hospital superintendents have felt that windows that are especially built to swing at right angles to the sash favor window cleaning. More often than not, there are discovered radiators with sections placed so near together that hardly the width of the hand separates them. The so-called hospital radiator, while requiring slightly more room than others, is much more easily cleaned than the type usually installed.

Some mistakes that would appear ludicrous were they not so serious have been made in hospital planning. In a new institution costing several millions of dollars, a large skylight was placed over the pathologic museum. After the acceptance of the plant, it was discovered that there was no way by which a porter could reach the upper surface of this skylight in order to clean it. An expensive rearrangement of runs and doors was the only solution.

Sufficient Space Is Necessary

In operating rooms, supposed to be modern, too frequently radiators are enclosed in metal and glass. These partitions reaching to the ceiling leave insufficient space for the proper cleaning of this area. Indeed, in some instances it has been observed that there was provided no possible way by which this portion of the operating room could be cleaned. The objectionable features of such a situation with its attendant infective possibilities need no elaboration. Such a fault bespeaks a too casual acquaintance with hospital necessities, or else an inexcusable carelessness in the original planning.

It is hard to understand why in the construction of new hospitals and in the renovation of old ones, there is such a disinclination to provide sufficient janitorial closets for the temporary storage of mops, brooms, the coats and hats of orderlies, attendants and porters, and cleaning material and buckets. Too frequently one observes porters and orderlies hanging their hats and coats in conspicuous places about ward units. When criticized they easily justify their acts by stating that no place has been provided for them. Utility and toilet space is often malodorous with the aroma of stale mops and soiled dust cloths. Why more institutions do not provide proper space in which mops may be aired and sunned is difficult to understand. Frequently the walls of the smoke chambers of fire escapes may be used for this purpose. Sometimes especially planned balconies leading from utility rooms furnish the necessary facilities for the proper airing, sunning and drying of mops.

Necessities of Sanitation

Inspection of long runs of corridors, outdoor sun porches and roof gardens often fails to discover the presence of water taps so useful in cleaning. Basements are notoriously difficult to clean. Elevator pits frequently have no means of access for the porter who should remove from them waste paper and other collections of dirt. Moreover, there is nothing more offensive to the eye than to observe dumb-waiter, passenger and service elevator shafts that are unsightly with dirt because those whose duty it is to correct and prevent such conditions have been negligent. There is usually no more uncleanly site in the hospital than linen chutes. In modern hospitals, a flushing device is frequently found, but too often there are observed chutes lined with galvanized iron with no provision for their proper cleansing. In hospitals with incinerators, the chutes leading to them are frequently insanitary because of the soiling with garbage and other material placed in them for burning. It is impossible economically to maintain a hospital in a sanitary state in which the common necessities have not been placed at the time of construction.

Previous articles in THE MODERN HOSPITAL have discussed the organization of the housekeeping department. These articles have pointed out that there are various types of organization, each of which possesses its points of excellency as well as those of questionable merit. In most institutions of size the housekeeping department exists as a separate division in the hospital organization. This service as a rule is headed by a woman of experience who possesses a strong aversion to uncleanliness and disorder. She is usually answerable to the superintendent of the hospital. In some instances, her lines of authority proceed to the administrator through the chief nurse. The housekeeper should have complete

control over all of the personnel in her department. She should engage and discharge at her discretion. In other institutions, the superintendent, particularly if this officer is a woman, makes herself directly responsible for the housekeeping and issues orders directly to those concerned with it.

In many of the best conducted institutions in the field, the superintendent of nurses is responsible for the cleaning of the hospital. This arrangement probably represents a relic of the days when nurses were not only expected to care for the patients but were also expected to perform many of the duties of the housekeeper. This requirement is one of the rocks upon which those of the old school have split with those of the newer practices in nursing. Although there is merit in this plan, the supervision of janitorial help should not be allowed to detract from the contribution rightfully expected from the head of the nursing department.

It is regrettable that too frequently friction exists between the chief nurse and the housekeeper. But there are some practical aspects to this relationship that deserve consideration. If porters and maids do not clean properly, ward supervisors should be empowered to give them orders directly without complicating the situation by requiring that these reports be made through the chief nurse to the superintendent and in turn to the housekeeper.

Who Is Responsible?

A set-up to be condemned is that in which a house committee of the board of trustees is responsible for the cleanliness of the institution. In too many instances, such a committee, or its chairman, issues orders directly to the housekeeper without the knowledge or approval of the superintendent. The scope of the duties that are usually assigned to the housekeeper and her staff varies with the institution. In some cases, responsibility for the cleanliness of the whole hospital plant, including operating rooms, utility rooms, basements, halls, wards, nurses' homes and even the grounds of the institution is assigned to the housekeeper. In others, she is not held responsible for the condition of operating rooms, dining rooms, basements, grounds, nurses' home or superintendents' and physicians' living quarters.

The cleaning of areaways, the washing of windows and the maintenance of grounds in a sanitary condition represent some of the types of duties that are frequently assigned to a foreman of cleaners who is not answerable to the housekeeper. No institution can present an orderly and sanitary appearance if its front and back yards are littered with refuse. An annual official disposal should be made of such discarded material and equipment as broken wheel chairs and other surgical equipment, artificial limbs that have been donated but are useless, crutches, canes and the hundred and one useless but space consuming articles too frequently found in the hospital's back yard.

A definite assignment should be made to cover in detail the cleaning of every stairway, areaway, ward, room, corridor, basement and window in the hospital. In the institution that is being most economically maintained in a sanitary fashion, a strong administrative head upon whom the responsibility for this work has been definitely placed is sure to be found.

Ratio of Employees to Pupil Nurses

Some hospitals believe that it is more economical to contract on an annual basis for window cleaning than to perform this work by the aid of the institution's own personnel. Much depends, of course, on the size of the institution and upon the financial attractiveness of the contract secured as to which of these plans is most efficient.

Something has been said concerning the relationship the housekeeping department must bear to the department of maintenance and repairs. The activities of the former department have an equally important relation to the actual nursing of patients. The day is fast disappearing when pupil nurses are expected to perform the major portion of the housekeeping of the departments to which they have been assigned. Yet it is discouraging to note that in some instances pupil nurses are still required to scrub, sweep and dust to their educational disadvantage as well as, it may be remarked, to the detriment of the morale of the school and of the reputation of the hospital.

An endeavor has been made to learn the proper ratio between the number of pupil nurses and all such subsidiary help as attendants, porters and others concerned in the conduct of ward units. This ratio varies considerably and ranges in a descending scale from one pupil nurse to seven other employees, to one pupil nurse to one other employee. In an institution, for example, in which a ratio of one attendant or porter to each pupil nurse is found, it may be concluded the pupil nurse is more likely to be found performing janitorial duties to the detriment of the patient than in instances in which there is an average of four such employees to each pupil nurse. In a group of fifteen Eastern hospitals, it was found that for every pupil nurse there were three and

three-tenths persons employed. These included maids, orderlies and attendants who were responsible for assisting the nurse in her ward work.

In considering the efficiency and economy of the conduct of the housekeeping department, one must view not only the methods employed in cleaning but also the type of personnel engaged, the amount of salary they receive, the number of hours they are employed during the day and the amount of sick leave and vacation time they are granted.

The duties of the housekeeper are often of a more comprehensive nature than those that comprise the mere supervision of janitorial work. To her are frequently assigned many types of persons. She has one or more assistants. Frequently the house mother or matron of the nurses' home or of other personnel buildings answer to her. Sometimes hospital seamstresses are also included in her department. In small institutions the supervision of the dietetic work of the hospital is frequently required of the housekeeper. The nomenclature applied to the personnel of the housekeeping department, therefore, varies with the organization and type of the hospital. Porters, maids, yardmen, scrubwomen, head janitors and in some instances even chauffeurs and mechanical help, such as painters, plumbers and handy men are assigned to her. In smaller institutions, the supervision of the laundry is often required of the housekeeper, and all laundry employees appear on her lists. This is found to be the case in a hospital in a Southern city. It may be remarked incidentally that this particular hospital is not distinguished for cleanliness and that the housekeeper there is expected to do more than it is humanly possible for one woman to do efficiently.

In summarizing this description of the varied arrangements observed insofar as the housekeeper is concerned, it may be said that a centralization of authority seems advisable with regard to the cleaning of not only the hospital but also the nurses' home and other personnel buildings. It may appear more efficient for the dietitian to be responsible for the cleaning of the work rooms and kitchens under her supervision. It probably is wise for the department of maintenance to supervise the cleaning of yards and areaways. Too many duties should not be given the housekeeper because of the likelihood of her then not being able to do any duty thoroughly.

TABLE SHOWING PERSONNEL MANAGEMENT IN TWELVE HOSPITALS

	A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	*K*	*L*
Employees live in...	4	6	0	0	7	18	3	6	1	3	1	2
Employees live out..	19	55	22	20	15	12	4	22	5	14	6	8
Total number of employees	123	61	27	118	22	30	7	28	6	17	7	10
Uniforms furnished.	No	Yes	No	No	Porter Yes	Yes	Yes	Head Porter	Yes	Porters	No	No
Uniforms laundered.	Yes	Yes	Yes	Yes	Porter Yes	Yes	Yes	Head Porter	Yes	Yes	No	No
Hours of work of maids and porters.	M—8½ P—9	8	8	8	8	8	M 8-9	10	8	P—8 M—9	7½	8
Days off a month...	3	4	4	2	3	3½	4	P—2	3	4	3	4
Vacation	1-2 wks.	1-2 wks.	2 wks.	Not given	1 wk.	1-2 wks.	2	M—3 None	1 wk.	1-2 wks.	1-2 wks.	1 wk.
Wages: porters....	$58	$70	$90	$50	$45	$40		$66.77		$70		
Wages: maids.....	$68	$65 60	$60	$50	$37	$45 40	$45	$50	$65	$80 70	$52	$50

How much should be paid to the housekeeper and the members of her group? The accompanying table sets forth in a composite way the practice in a group of twelve institutions. This takes into consideration the housing, the number of employees, uniforms, hours on duty, vacation time and wages of porters and maids.

It will be noted from this table that forty-eight of 250 or about 33 per cent of these employees live in the hospital. Five of these institutions furnish all uniforms and seven do not. The average wage for porters is $61, and for maids, $55. When it comes to the question of the salary usually paid for housekeepers, in six of these institutions it was found that an average of $118 a month with maintenance was paid. In two the housekeepers' salaries, without room but including board and laundry, were $125 and $150 a month. These are larger hospitals, averaging

250 and 400 beds respectively. In one institution—a large city hospital—a salary of $165 a month with maintenance is paid to the housekeeper. The average assistant housekeeper's salary in this study with complete maintenance in three instances was $68 per month and in two others it was $100 a month without room but with board and laundry. The average salary for maids in eleven hospitals was $60, with three meals and the laundering of their uniforms. The average salary for porters in eight instances was $60 a month with three meals and the laundering of their uniforms. The largest number of these persons do not reside in the institution.

Great variance will be noted in the number of hours off duty, days off and length of vacations allowed the various employees of the housekeeping department. In some instances, maids and porters worked as long as ten hours a day. In others, due to unexplainable reasons, maids were required to work one hour longer than porters. The average for this group was eight hours a day.

In most institutions it is impossible to perform much cleaning at night. Unlike office buildings, in which all rooms are vacated at nightfall and which lend themselves well to night cleaning, the hospital cannot be disturbed by men and women at work during these hours. It would seem a matter of worthy consideration if corridors and lobbies of administration buildings could be cleaned at night rather than to risk the possibility of visitors and others falling on wet floors.

Modern Ways Are Best

Nothing has been said in regard to the advisability of departing from antiquated practices in performing the work of the housekeeping department. The engaging of a man at even such a meager salary as $35 a month to polish floors with an old-fashioned iron is an extravagance. The scrubbing of corridors, dining rooms and other areas of considerable space with mops and hand brushes is not only inefficient but it is also costly. Excellent mechanical scrubbing and mopping machines are on the market and the polishing of waxed wood and linoleum floors is made much more efficient, inexpensive and easy by the use of an electrically driven machine. Little experience with such apparatus is required to perform this work properly and the hospital profits not only in efficiency but in dollars and cents.

It is a difficult thing to convince many boards of trustees that several hundred dollars spent in this way represents an excellent investment from a purely business standpoint. Thinking lay people are not slow to see that hospitals cling not only to antiquated business methods but that they are also backward about adopting labor saving devices which have been found so efficient and worth while by industry everywhere.

To conclude, therefore, it seems that it is wise to house only the minimum number of representatives of housekeeping departments; that eight hours a day, two weeks' sick time allowance in a year and two weeks' vacation are the customary daily working, sick leave and vacation periods; that the housekeeper should rank as a department head; that the hospital for the sake of uniformity should furnish and launder uniforms, and that mechanical aids to cleaning are efficient and economical.

On the Care of Premature Babies

Because of the attention the Kansas City General Hospital, Kansas City, Mo., is giving to the care of premature infants, the methods in use there will be of interest to other hospitals that are confronted with the same problem.

According to an article by Mary Katherine Herwick, R.N., on the subject in the January issue of the *American Journal of Nursing*, the nursery which houses the premature babies also houses the full term babies and isolation cases, and is in the sunniest, airiest wing in the hospital.

Special cribs for the premature babies have almost entirely displaced incubators. The special crib, which is inexpensive, is made by enclosing a regulation size crib with an arrangement of folded sheets, pinned closely around the sides to form a cloth cabinet. The folds, which are of several thicknesses, are brought across the sides and ends of the top, leaving an open square in the center. A mattress is placed in the crib and the entire inside is covered with quilted padding. There is a space of at least eight inches along the sides and the foot where hot water bottles may be placed. The water may be as hot as needed, since the baby can under no circumstances come in contact with them. The cloth arrangement permits the right amount of air to filter through the cabinet in which a constant heat is maintained by the hot water bottles.

The premature baby is dressed in a band and diaper, both of extra softness. It is then put into a special jacket. The jacket is a strip of cheesecloth or gauze eighteen inches wide and forty-two inches long, with an interlining of cotton, quilted, and the edges bound together. The weight of the jacket is five ounces. It is folded in the center and a round opening about four inches in diameter is made at the middle center of one side. This circular opening is only large enough to allow the eyes, the nose and the mouth of the infant to be exposed. All clothing worn by the baby is washed by hand to ensure softness and cleanliness and sterilization.

A routine of established techniques is followed in caring for premature babies except in unusual cases where special treatment is required. Every effort is made to avoid handling and to avoid exposure. The feeding is with breast milk when possible; if not, a prescribed formula is used.

A mothers' milk station has recently been established at the hospital where breast milk may be obtained.

Editorials

Recognizing the Needs of the Mentally Ill

IN PERHAPS no part of the hospital field is more constructive thought being applied than is the case in regard to matters that relate to mental hospitals.

The day of the old insane asylum is passing and the attitude of society towards the mentally ill is undergoing a significant change. Any form of illness that manifests itself in abnormal behavior has long been the object of morbid curiosity and fear. Patients suffering from such diseases have been subjected to misunderstanding, ridicule and in many instances to persecution. Hospitals for the insane were established, not so much as institutions for the care and treatment of patients who were sick mentally as for the protection of society from the insane and to relieve families from the burden of caring for such persons. From time to time, investigations of insane asylums have revealed conditions hardly credible in modern civilized communities. Confinement in an insane asylum created a stigma that embarrassed the patient's family and even if the patient was eventually discharged as cured it was well-nigh impossible for him to resume a normal place in the community.

All these conditions are now being changed. Mental hospitals are being built not primarily for the purpose of housing inmates and providing for their physical needs as cheaply as possible, but rather as hospitals affording every facility for the diagnosis and treatment of mental diseases and providing humane and adequate care for their patients.

The immensity of the problem of meeting the needs of the mentally ill becomes more and more apparent. A recent report of the United States Veterans' Bureau states that of 26,926 patients under treatment in all government hospitals, 12,780 or 44 per cent were mental patients. Of the recent congressional appropriation of $15,950,000 for new hospital facilities for disabled veterans, approximately $6,800,000 is to be allowed to provide additional facilities for mentally ill patients.

In New York State, legislation has been enacted appropriating $18,300,000 to provide 6,000 additional beds in state hospitals for the insane. Governor Roosevelt's proposed budget includes among welfare items the sum of $48,210,110 for the use of the mental hygiene department.

Porto Rico opened a new insane hospital in September, 1929, which provides for approximately one thousand patients. This hospital is modern and up-to-date in every respect and through its facilities, Porto Rico, for the first time, is able to afford adequate care for patients suffering from mental diseases.

Mississippi is about to expend two and a half millions in increasing its facilities. British Columbia is constructing a new building for women patients at a cost of a million and a half.

It is not only in new and larger and better buildings that this new attitude towards the care of the mentally ill is manifesting itself. Hospital social service in the related fields of mental hygiene and mental hospitals is proving an effective means of helping patients and their families to make many of the social adjustments that in the past have been baffling or impossible.

Out-patient clinics in conjunction with state hospitals, by providing facilities for after care of discharged hospital patients, make possible earlier discharges and provide the means for such patients to remain under observation and treatment as long as their needs make this desirable. These clinics and those established and maintained by the National Committee for Mental Hygiene are doing excellent work.

In the old days society looked upon the insane as possessed of devils. In the new day we are coming to consider them as sick folks who need sympathetic and scientific care.

The Hospital and the Stock Market

IN TIMES of financial unrest, the hospital early feels a definite tightening of purse strings that is often disproportionate to community or personal retrenchment along other lines. This attitude of mind has been particularly evident in the past half year. Welfare federation campaigns have failed to reach their full goal. Hospital drives for building or maintenance funds have been most disappointing. The necessity for hospital economy, while perennially present, now appears more urgent than ever.

What is the reason for this condition? Economic depression, whether the cause or the result of the recent stock market debacle, is thought by many to explain the lack of ability or of willingness on the part of the public to contribute as formerly to the support of hospital work. Lack of money with which to meet the fees of hospitals and physicians, the absence of the usual seasonal diseases, the success of preventive medi-

cine propaganda, are all advanced as explanatory of a declining use of the income producing facilities of the hospital. With economic readjustments the financial affairs of the hospital will certainly return to normal. The hospital must carry on even though ward loads increase and incomes decline. The moral and financial support of a grateful public is a foundation too deeply rooted to crumble easily.

Satisfying the Patient

HOSPITAL people seem to be awakening to the need for research into some of the problems that have evoked criticism from patients, and we may look forward to several studies that will be of prime importance in building good will with the public. Superintendents in the past have been too prone to take the "It can't be done" attitude rather than to seek a remedy for a particular difficulty.

As an example, every discharged patient will tell you that he was awakened too early in the morning. That the nurse came in, woke him and bathed him. Then he was forced to wait hours before he got his breakfast. This complaint is now being studied to see if a later awakening or an earlier breakfast could be arranged to the end that patients may be better satisfied. Undoubtedly a solution will be found and if some practice can be established that will apply to most hospitals on this one small simple procedure, at least 40 per cent of all criticism will be removed.

Another problem that has been debated but for which no solution has been found is that of "cold meals." Manufacturers of all sorts of equipment have done much to eliminate this complaint but there is always present the human element. When this exists human supervision is necessary, no matter how fine the mechanical service may be. This also is being studied and it is hoped that a remedy may be found.

Still another complaint comes from charges that are not explained to the patient when he enters the institution. No study is necessary to eliminate this complaint. It is solely up to the management of the hospital.

We should all combine this year with a view to eliminating patients' complaints. With early washing, cold meals and misunderstood bills out of the way, only a few unclassified complaints of a nature that would not permit of a general solution would be left to struggle with. Let us make the coming year one of practically no complaints from the patients. When this Herculean task has been accomplished, let us then work toward the elimination of complaints from staff members.

The Hospital in Current Literature

ARTICLES about the hospital appear to find ready buyers. Hardly a month passes without the appearance in current lay journals of more or less lengthy and true to fact discussions of various economic and administrative phases of the hospital's work.

Strangely enough the authors of these sketches almost uniformly fail to qualify as authorities on institutional management. True, in many instances, they appear to have had institutional treatment or to have known others who have had it. Some, it seems, have thoughtfully considered the effect of present day sickness costs on the economic life of the masses. Yet it is rare for these writers to show any ability in comparing the cost of production of the commodity called hospital service to the sick with the price charged for it.

Usually it has been found the most popular and, hence, the most lucrative policy to cast suspicion on the necessity for present day hospital charges. The hospital world, too busy with the prosecution of its scientific and economic problems, must remain mute in the presence of its accusers. The plight of the middle class is always a safe subject for the literary necromancer. Such articles, while containing much interesting and readable information, are usually misleading, often partial and, hence, are somewhat unfair to the hospital generally.

Let there be an end to loose, semisensational and ill-considered statements about the cost of hospital service. To tell the public only of the problems of the community's sick is unjust, unless the honest, although often ineffective struggles of the hospital to solve these difficulties are also described. Not fewer words but more facts and no less publicity but more vision in lay hospital literature should represent the basic demands of those who buy literary food for public consumption.

And the Greater of These Is Health

"THERE are ten universities with an endowment of more than $20,000,000. There are only ten hospitals with an endowment of $2,000,000."

These statements from a recent issue of the *Journal of Education* are significant in their bearing on the plight of the hard-beset middle class, whose education it thus appears is half paid for by endowment—if not wholly paid for

by taxation—but whose hospital bills make health a luxury difficult to obtain.

Have the claims of the hospital been forcefully set before philanthropists and those who control the great Foundations? Surely not, for while they are apparently awake to the needs of the universities those of the hospitals have moved them to generosity in relatively small proportion. Yet it is everybody's business to guarantee each child its birthright—a sound healthy body and a physical education that will prepare him for this industrial age of speed and strain.

The claims of health are supreme even over those of education, for if, as we are told, education is the preparation for life, then we must give to every boy and girl the physical fitness essential if he is to pursue his studies with profit, to earn a living and to enjoy a wholesome life. A body in steadfast health gives a confidence that arms against fear or failure and stimulates to great effort.

The hospital is yearly becoming more closely interwoven with the lives of the people. Expectant mothers go there in increasing numbers; those who live in small apartments or residential hotels resort to it in cases of even minor illnesses because it is not practical for them to get proper care in their homes; surgeons in most cases are reluctant to perform any operations in homes; preventive medicine is the coming thing and in this the hospital must play the leading part.

Hospital administrators and the many who have studied the hospital from a humanitarian standpoint, who know its needs and who know its claims to generosity should devise a scheme to lay these needs and these claims impressively before those who have it in their power to influence the disbursement of large sums of money.

Education and health, health and education—both are vitally important, and the greater of these is health.

Talking It Over

AN OLD pilgrim, so the story goes, came to a stream and with much difficulty forded it. Once across, he collected material and began the building of a bridge. "Why do you waste your time bridging a stream you have already crossed. You haven't many years left. You'd better hurry on towards your destination," said a fellow traveler. "Back there on the road," was the reply, "a young pilgrim is following. If I bridge the streams I cross, he can get further on his pilgrimage and if he too builds bridges, someone will eventually reach the shrine."

* * *

CONSCIOUSLY and unconsciously a lot of people in the hospital world are bridge builders. All of those who really progress in their work are stream forders. A good many stop and build a bridge. The first bridge may be pretty crude but it facilitates the onward movement and some following pilgrim will stop and improve it. Thus, in time, a perfect bridge is created.

* * *

HOSPITALS themselves are bridges over which the sick may travel from disease to health. The xenodochia were crudity itself but down the ages the hospitaler has been a bridge improver until to-day hospitals as a whole are safe and fairly comfortable structures thrown across the chasm of death. The spirit which actuates the hospital is that of dissatisfaction with present day methods and a desire to improve them. In consequence, service to the sick grows better every year: patients are returned to health more certainly and more rapidly: the average number of days of hospitalization has been greatly reduced and when all the factors are considered, hospital costs are less than they have ever been before.

* * *

UTILITARIANISM would never have accomplished these things: only the highest form of idealism could have done them. It has been a practical idealism which has realized that personal sacrifice and eternal striving are bound to bring results that react to the benefit of the patient and the community.

* * *

ONE of the puzzles of zoology is, where do the elephants go to die? Similarly, one is led to wonder what becomes of the superannuated nurse. Nursing is hard work. It taxes the physical, mental and emotional physique. Perhaps this is the reason that nursing graduates of twenty-five years ago are seldom encountered. But what has become of the others? Surely death and matrimony have not so depleted their ranks. The solution of this problem would throw considerable light on the economics of the profession of nursing.

* * *

ANOTHER interesting problem is, what do nurses do with their time? Do they spend it in nursing or does the hospital employ them in clerical and other work that is not professional? A careful survey of the amounts of time expended by nurses on various tasks will, in many instances, reveal the fact that nursing proper occupies the minimum of their time. This is using razors to cut grindstones but as such is not economical. It is unfair to the nurse, the hospital and the patient.

* * *

PERHAPS some student nurse has wondered where the tendo achillis got its name. At any rate the following story will serve as a peg on which she may hang what she learns of its anatomy. Achilles was a Greek warrior. In order to protect him against all wounds, so runs the ancient myth, he was dipped in the river Styx, the stream where mortals cross to pass to the hereafter. In the process of immersion, he was held by the heels which consequently did not come in contact with the magic fluid and hence were vulnerable. At the siege of Troy, Paris shot an arrow into Achilles' heel and thus killed him.

* * *

A GOLF ball isn't lost until you stop hunting it. There is no failure except in quitting. Many a man throws up his hands when he should shove in his fist. Continuous effort brings success. Failure comes from within; victory comes from within; it is what there is in our souls and hearts and heads that makes our destinies.

YOUR EVERYDAY PROBLEMS

A department devoted to the informal discussion of problems arising in the everyday life of the hospital superintendent.

[No attempt has been made to offer final conclusions relative to the questions considered in this department. THE MODERN HOSPITAL will gladly welcome further comment by its readers on any of these problems, or the presentation of other queries for discussion in later issues.—Editor.]

Should Nurses Be Accepted Who Have Broken the Rules at Another Hospital?

A hospital in an Eastern metropolis has been asked to accept as affiliating students in its school for nurses, two young women who flagrantly broke the rules of a second hospital while serving there in a like capacity. These two young women, while seeking to complete a three months' course in maternity work, openly defied rules governing the length of time they were allowed to be absent from the hospital, and as a result were suspended from service. It is necessary for these nurses to secure a certain amount of maternity experience before they are able to be admitted to the state board examination for registration. The superintendent of nurses desires an opinion as to the proper course to pursue under the above circumstances.

There are certain types of infraction of rules which may be more or less definitely classified as to the motive of the offender as well as to her personality and rearing. In this instance, these two young women deliberately accepted an invitation to be absent from the city, knowing full well that they could not return at the time required by the hospital's regulations. They were mature enough to possess a certain amount of inhibition which should have decided their course. Discipline is difficult enough without the acceptance of those who do not care to obey rules.

THE MODERN HOSPITAL advises the superintendent inquiring to refuse to accept these nurses as affiliating students, and hopes that the superintendent of this hospital as well as its board of trustees will sustain this course of action. The young women of to-day who enter training schools must possess character traits and strength of will of such a high type that there need be no monitor at their side to assure the hospital of at least a reasonable regard for good behavior and for individual and institutional reputation.

Should an Intern on Obstetrics Service Leave the Hospital if His Patient Is in Labor?

Almost every institution arranges for regular days and nights off duty for the members of its intern staff. During the absence of each intern, there is usually provided an alternate who is capable of performing the duties of his absent colleague. But doctors of whatever grade cannot work by the rule of the clock. State boards of medical education often frown on a regular time off duty schedule, contending that an intern should give his entire time to the hospital. Such a period represents no less than twenty-four hours comprising each day. In a large institution, it seems necessary to draw up a regular schedule which grants regular hours of absence to each intern.

A hospital administrator can soon learn the degree of interest which each intern has in his work when he observes the extent to which these young physicians utilize their time off duty permission. A physician deeply interested in his work and his patients will hesitate to leave the hospital while he has an obstetric patient in labor. Not only from the standpoint of his own education would he refrain from thus utilizing his off duty time but also because of a certain human interest in the patient as an individual. To be sure the intern may have made an important engagement which it is impossible to break and, hence, he will be forced to leave his work in the care of another. As a rule it may be said that conscientious interns will not leave the hospital while they have a patient in labor and that those who regularly do so are unsuitable material from which to build an efficient resident staff.

Should Dual Control Exist in the Dietary Department?

An interesting arrangement often exists in the hospital by which a dietitian has charge of the kitchen in which food for patients is prepared and a chef or steward supervises the preparation of food for the institution's personnel, including physicians and nurses. Under such circumstances it seems to be taken for granted that a dietary department is unnecessary for well persons and that the services of a chef are sufficient to guarantee nourishing food for those working in the hospital. It is a well known fact that manufacturing concerns frequently deem it advantageous to engage a dietitian to prepare menus for their employees. This is particularly true when a cafeteria or other type of restaurant service is offered industrial workers.

It must be granted that, while the average chef is able to cater to the likes of young physicians, he does not usually fully comprehend the details of preparing well balanced diets. In the light of modern science food is not only the means of sustaining life but is also often considered something of a medicine. From an administrative standpoint friction often arises when a dual system exists. Moreover there is a constant invitation to invite odious comparisons as to the relative merits of these two systems. It is an ideal situation to have a well trained administrative dietitian at the head of a department covering every activity connected with the selection and preparation of food. In the administrative set-up, the chef answers to the dietitian. Housekeepers and others concerned also report directly to the dietitian. To be sure, food may be purchased by the hospital steward or pur-

chasing agent upon requisition of the dietitian, the superintendent possessing the deciding power as to the type and relative expense of the food to be purchased. The dietitian heading the department should answer directly to the superintendent. Her judgment should be such that rarely, if ever, should it be necessary for the superintendent to refuse to purchase supplies she requests. A frequent conference at which the superintendent, dietitian and purchasing agent are in attendance is an effective way of preventing friction in this department.

What Should Be the Superintendent's Part in Planning a New Hospital?

Many a hospital director has suffered heartaches because he has been ignored during the course of deliberations and plannings for a new hospital. Sometimes such an action on the part of the board of trustees represents only thoughtlessness and again it would appear that such a course is intentionally adopted in order to let the superintendent know that with the new buildings his services will be no longer required. Often a hospital consultant is brought in to assist in the preparation of plans. But even this individual, be he of the greatest experience and training, cannot supply the necessary local information in regard to the real needs of the community and its hospital, which can and should be furnished by the superintendent who has had these problems presented to him every working day. Some of the grossest and most expensive errors in hospital planning are made because the consultant did not insist that the superintendent attend all meetings at which plans for the new institution were discussed. Indeed the solution of this problem often lies in the hands of the consultant and it is he who should insist that the superintendent be not ignored.

To be sure, the executive then acting may not possess all the capabilities necessary to his position. If this be true it would be far more just to him and to the hospital to secure the services of a new executive in order that this official may be fully informed as to the plans for the new hospital and given an opportunity to lend his advice in regard to the construction of buildings he will be expected to administer. If from no other standpoint than that of the good of the hospital and the community a process of elimination so far as the superintendent is concerned should not take place coincidentally with the construction of the new institution.

Who Is Responsible for the Radium Used in a Hospital But Not Owned by It?

In a certain institution that does not possess radium it is the custom to borrow it when it is needed in the treatment of malignant and other allied conditions. In this locality, a group of physicians has purchased radium for their own use. Recently a tube of radium was lost in the hospital, which had borrowed it. Up to this time the hospital had refused to make itself in any way responsible for the safety of this valuable metal while it was in use in its wards and private rooms. It had been the custom of the surgeon who intended to use radium to deliver it in person to the operating room nurse whose duty it was to sterilize the needles and present them to him at the time of operation. The surgeon himself often came to the hospital and removed the radium and conveyed it some distance from the hospital to its proper storage space.

In this instance it would seem that the institution was perfectly justified in refusing to assume responsibility for the safety of the radium because it was delivered and removed from the hospital by the surgeon using it. Although this radium was fully covered by insurance, the hospital was subjected to the embarrassing procedure of having its personnel examined and in a measure suspected of dishonesty. Under such circumstances it would seem that the institution cannot wisely assume a passive or indifferent attitude and refuse to be responsible for the safety of so valuable a metal which, while not belonging to the hospital, was being used within its doors. Particularly is this true, since nurses, resident physicians and others must be brought into more or less intimate contact with the radium and, hence, become partly responsible for its safety. Recognizing this situation, the superintendent of this hospital has now devised a simple but thoroughly businesslike system. No matter to whom the radium is delivered, a receipt including a count of the number of articles composing the delivery is required therefor. This system also covers the transmission of the radium from person to person. Unless some similar routine procedure is carried out, the hospital is continually exposing itself to a suspicion of dishonesty or negligence in the avoidance of preventable loss.

Moreover the loss of the radium is not the only danger. Undue overexposure of patients as well as immediate ill effects of contact with radium on the part of the hospital's personnel is always an end to be avoided. In the foregoing instance, much carelessness had been manifested. Total lack of businesslike procedure was in existence, and the hospital was guilty of a laxity of methods which should not be permitted in institutions of this kind.

Upon Whose Authority Should Nurses Be Punished?

This interesting question has been asked by a directress of nurses in a New England school. It is the feeling of this official that when a nurse has been guilty of an infraction of the hospital's rules she and she alone should possess the authority to decide upon a suitable punishment and to attend to the enforcement thereof. It is a good administrative rule, of course, for the heads of departments to have complete charge over all of the workers answering to them. But this authority is simply a delegated one which she possesses because of a confidence that has been imposed in her by the superintendent of the hospital and in him by the board of trustees. Hence, when the directress of nurses decides that a member of her school deserves reproach, suspension or expulsion, the matter should be fully discussed with her immediate superior in order that she may be certain in the first place of his support should a contest arise and also because of her desire to secure the advantage of his judgment in the matter.

It should never be humiliating in the least to consult with the superintendent on any matter, large or small, affecting her school nor should it be necessary for the executive to insist that this be done. Cooperation and the coordination of effort are the keynotes of successful hospital administration. After all the superintendent is responsible to his board of trustees for the proper conduct of even the minor details of hospital work. THE MODERN HOSPITAL advises the inquiring directress to take the superintendent into her confidence on all matters affecting the school for nurses. By so doing she will avoid embarrassing reversals of decisions when by chance she has rendered an opinion which may not appear tenable later.

Should Staff Physicians and Their Families Be Given Reduced Hospital Rates?

It was proposed at a recent meeting of the board of trustees of a Midwestern hospital that the members of the families of attending physicians be given reduced rates when in need of hospital treatment. The president of the board has requested THE MODERN HOSPITAL to submit an opinion as to the advisability of the adoption of such a procedure.

Most institutions feel that the physicians who are serving the hospital should receive when they become ill every possible courtesy and care within the power of the hospital. In some institutions physicians are treated free. These hospitals do not feel that they lose anything thereby because of the elevation of morale engendered by this practice. Physicians generally give without any hesitancy of their time and skill in the care of members of the hospital family. Recognizing this the board of trustees usually is anxious to repay in kind this splendid service.

When it comes to the treatment of the physician's family, there is less agreement as to the fairness of reducing hospital prices. Some institutions grant a 50 per cent rate both to the physician and his family. Others provide free treatment for him and fifty per cent rebate for the immediate members of his family. This would include the physician's wife and children. No deduction is usually granted to other relatives. It would seem fair to make this deduction in the case of immediate members of his family and unfair to expect the hospital to provide any such courtesy for more distant relatives.

THE MODERN HOSPITAL believes that it is money well spent to adopt a rather generous policy in this matter and feels that the practice of most hospitals in granting a reduction, if not the entire franking of charges to the sick physician, and a decided reduction for members of his immediate family when they become ill is a practice to be recommended.

What Is the Value of an Intern to a Hospital?

The superintendent of a Western hospital has asked THE MODERN HOSPITAL this unique and interesting question. The basis for this query appears to be a determination of the actual value of an intern to a hospital on a monetary basis, in an effort to adjudicate a claim before an industrial accident commission for injury to a young physician during his term of service. This appears to be an absolutely new angle of approach and one that has not hitherto been brought to the attention of administrators generally.

It has been computed that the student nurse, for example, costs the hospital about $1,100 a year for maintenance and instruction. A graduate nurse on a somewhat different basis requires an expenditure for a year's service of $1,800. When one tries to compute the actual value to the hospital of the services of either one of these types of nurses, he finds it difficult. One can only express the returns that result from the activities of the nurse in the abstract figures which represent the saving of human life and suffering, and not in the more concrete coin of dollars and cents. In hospitals that do not possess an intern staff, graduate physicians must be employed. Depending upon the experience such medical officers receive will be the monetary recompense they expect. This varies from $900 to $1,800 for resident physician service. Of course, where administrative duties are assigned to these resident officers, the salaries paid are more variable.

Therefore, if one were to endeavor to compute the value of the intern to the hospital he must estimate, because no better yardstick is at hand, the amount of money that would be required to secure a medical officer to perform like duties were the intern system not in vogue. This figure would range for a recent graduate from $600 to $1,200, per annum, plus approximately $400 for board and laundry. It must be understood, however, that such an estimate is merely conjectural and that, under certain situations, a resident physician or an intern, because of personal capabilities or peculiar local requirements, may be of much greater value to the hospital.

When and How Should the Genito-Urinary Clinic Be Conducted?

At times hospitals have a practice of disregarding the question of convenience to their patients when they arrange the hour at which their out-patient clinics should meet. In one instance the prenatal clinic was scheduled for 7:30 o'clock a.m. One cannot imagine a more inconvenient time for an expectant mother who has meals to prepare and children to be clothed for school. Frequently the venereal clinic is scheduled for an hour that makes it necessary for the working man to lose employment time in order to secure treatment. In justification of this practice it has been said that a man with an income should be able to pay for medical care. On the other hand, in consideration of a working man's expenses his income may be such that in reality he has full justification in seeking free medical treatment.

If an institution is in an industrial section a noon hour clinic is sometimes convenient for the worker. Particularly is this true when the dispensary is conducted on the appointment plan. Many hospitals have decided on an evening hour for the genito-urinary dispensary. If this time is set for 6:30 or 7 o'clock, the working man will be able to attend without seriously diminishing his earning power and hence the family income. If the institution is to serve its community as it should, it must consider not only its own convenience but also that of its patrons.

Concerning the manner in which these clinics are conducted, there is much to be said. Usually there is an atmosphere of hurry connected with the work that results in inadequate examinations, if not improper and inefficient treatment. A genito-urinary dispensary should not be placed in ill-lighted quarters nor should there be connected with it any spirit of disregard for the patients' interests because of the type of disease for which they are being treated. Certainly there should be sufficient laboratory space and equipment for routine urinalyses before each arsenical injection. In addition, facilities should be at hand for minor surgical procedures such as the drainage of suppurating glands, cystoscopies and other similar procedures.

Sometimes it has been found advisable to conduct two types of clinics, one for full-pay patients in which a fee of from $1 to $2 is charged for each intravenous injection and a smaller fee for the treatment of specific urethritis. The public health possibilities of the venereal clinic are great and if the hospital gives this activity its proper importance it will be able to render a public service which probably is not exceeded by any other out-patient department. It is advisable not to conduct the gynecologic clinic at the same hour. If a daytime clinic is to be held, it is perhaps more convenient to hold the dispensary for women during the daytime and the regular venereal clinic at an evening hour.

NEWS OF THE MONTH

Baker Hospital Will Cater to Those of the Middle Class

Dedicated to the great body of citizens of average circumstances, the Baker Memorial Hospital, newest unit of the Massachusetts General Hospital, Boston, was officially opened for inspection February 27, when Governor Frank G. Allen and other notable persons were present.

This $2,000,000 building is an eleven-story structure of 300-bed capacity. It was planned as a practical method of meeting a great social need and the rates in force have been calculated so that maximum costs for hospital and physicians' service combined will in no case be excessive. Room charges vary from $4 a day for a bed in a nine-bed room to $6.50 a day in a single room. In a four-bed room the cost is $4.50 a day and in a two-bed room $5.50 a day. Two hundred members of the staffs of the Massachusetts Eye and Ear Infirmary and the Massachusetts General Hospital will give patients of the Baker Memorial Hospital special rates so that the maximum professional fee never will exceed $150.

The dedication of the Baker Memorial marked the completion of a campaign started in 1914 by Dr. Frederic A. Washburn, director of the Massachusetts General Hospital, and the new institution stands as the first of its kind in the world. It was made possible by the large bequests of Mary Rich Richardson, in memory of her parents, Richard Baker, Jr., and her mother Ellen Maria Baker, to which were added gifts of many friends of the movement.

Dr. W. Franklin Wood, who will be in charge of the institution, will head the bureau of admittance which will rigidly limit the service to the persons for whom the hospital is intended.

Edwin R. Embree, president of the Julius Rosenwald Fund which has contributed $150,000 to the hospital to cover such deficits as may be incurred during the first two or three years, was a speaker at the dedication ceremonies and said in part: "The Baker Memorial is a striking example of the adaptation of medical practice to new economic and social conditions. The plan is to offer care and treatment at rates that the patient of moderate means can pay and which will cover the cost of the service. It is a cooperative enterprise between the managing authorities of the hospital and its medical staff whereby the patient receives a single bill, including both the professional fee and the hospital costs."

Ohio Announces Date and Program for Hospital Meeting

The sixteenth annual meeting of the Ohio Hospital Association will be held in Cincinnati on April 29 and 30.

There will be four round table discussions in charge of Frank A. Hoover, Alliance City Hospital, Alliance; Mary E. Yager, director, Women's and Children's Hospital, Toledo; A. E. Hardgrove, superintendent of the City Hospital, Akron, and Rev. M. F. Griffin, Youngstown.

At the evening meeting on Tuesday, Mayor Russell of Cincinnati will extend the city's welcome to the delegates and Dr. Albert H. Frieburg, president of the Ohio Medical Association, will give an address.

The Good Samaritan Hospital has planned a luncheon for Wednesday noon after which tours of that hospital and the Children's Hospital will be made.

Mid-West Association to Hold Meeting in Tulsa

The Mid-West Hospital Association will meet in Tulsa, Okla., April 25 and 26, with headquarters at the Hotel Mayo. The association at present consists of hospitals of Missouri, Kansas and Oklahoma, though invitations have been extended to Arkansas, Texas, Colorado, Iowa and Nebraska to take part in the meeting. Many outstanding men and women of the hospital world are expected to attend.

Saint Teresa College Completes Successful Nursing Course

Courses in hospital administration offered at the College of Saint Teresa, Winona, Minn., under the direction of Carolyn E. Gray, B.S., A.M., ended on Saturday, March 1. Enrollment for these courses in 1930 represented a 100 per cent increase over the enrollment in 1929, when the nursing courses were first introduced at the college.

Students enrolled in 1930 were from the following hospitals: St. Therese Hospital, Waukegan, Ill.; St. Joseph's Hospital, South Bend, Ind.; Mercy Hospital, Davenport, Iowa; St. Anthony's Hospital, Carroll, Iowa; Providence Hospital, Kansas City, Kan.; Municipal Hospital, Detroit; St. Joseph's Sanitarium, Mount Clemens, Mich.; St. Mary's Hospital, Rochester, Minn.; St. John's Hospital, St. Louis; St. Vincent's Hospital, Billings, Mont.; St. James Hospital, Butte, Mont.; Champlain Valley Hospital, Plattsburg, N. Y.; Providence Hospital, Sandusky, Ohio; St. Joseph Hospital, Lorain, Ohio; Elkins Memorial Hospital, Elkins, W. Va.; St. Joseph's Hospital, Marshfield, Wis.; Philippine General Hospital, Manila, P. I. Eleven different religious communities were represented among the nurses.

The courses in hospital administration are given each year as a part of the combined course in nursing and liberal arts leading to the degree of Bachelor of Science in nursing, which degree is conferred at Saint Teresa's. The certificate of registration for nurses and a diploma from an accredited high school are prerequisites for enrollment in these courses.

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News of the Month

Pennsylvania Meeting Enrolls Its Largest Attendance

ENROLLING the largest attendance in its history, the Hospital Association of Pennsylvania met at the William Penn Hotel, Pittsburgh, for three days beginning Tuesday, March 25.

Topics of interest to those concerned in administering hospitals were discussed. These included the hospital pharmacy, x-ray film storage, breakage, insurance and record keeping. Administration problems and the need for economy were stressed at every session. One feature of the meeting was the address by O. J. Keller, editor and vice-president, the *Pittsburgh Post-Gazette*, on "Publicity and Ethics" in which he emphasized the need for better cooperation between the hospital and the newspaper. A second feature was the tour of the new Montefiore Hospital, which closed the first day's meeting.

William M. Breitinger, superintendent, Reading Hospital, Reading, last year's president-elect, is the new president, succeeding Elizabeth H. Shaw, superintendent, St. Margaret Memorial Hospital, Pittsburgh. M. H. Eichenlaub, superintendent, Western Pennsylvania Hospital, Pittsburgh, is the new president-elect.

Round Tables Are Popular

Dr. Christopher G. Parnall, president, American Hospial Association, and superintendent, Rochester General Hospital, Rochester, N. Y., spoke convincingly on the necessity of checking up on patients to discover what they can pay and what type of room they should have. Doctor Parnall's speech was given at the session on Thursday morning, March 27.

The round table conferences that were conducted by John A. McNamara, executive editor, THE MODERN HOSPITAL, Dr. Malcolm T. MacEachern, director of hospital activities, American College of Surgeons and Jessie J. Turnbull, superintendent, Elizabeth Steel Magee Hospital, Pittsburgh, were well attended.

"Hospital Economics" was the general topic discussed at the round table led by Mr. McNamara, on Wednesday afternoon. John M. Smith, director, Hahnemann Hospital, Philadelphia, opened the discussion on "How to Save Money in the Pharmacy." Sister M. Irenaeus, superintendent, Providence Hospital, Beaver Falls, spoke on "How to Save Money in the Housekeeping Department." "How to Save Money in the X-Ray Department" was ably discussed by Dr. Charles C. Remy, formerly director, Montefiore Hospital, Pittsburgh. A timely subject, "How to Save Money on Your Insurance" was presented by Louis Wiederhold, Jr., secretary, Underwriters' Association of the Middle Department, Philadelphia. Following this session a moving picture film of hospital activities at Reading Hospital, Reading, was shown. It was called "Extending the Span of Life."

The round table led by Doctor MacEachern on Thursday morning was concerned with general hospital problems. "Staff Organization" was the first topic discussed. It was presented by Dr. L. H. Landon, Pittsburgh. In connection with the subject, the following questions were asked: What is the most desirable type of staff organization to ensure high grade scientific work? How can a thorough review and analysis of the clinical work, with maximum interest and benefit to all in attendance, be assured? Frances Benson, record librarian, Bryn Mawr Hospital, Bryn Mawr, gave a practical talk on "Case Records." The theme of her talk was: How can the hospital management and medical staff stimulate more interest in case records?

Eminent Educator Speaks

"Nursing Service" was the next topic on this program. It was discussed by Sister Laurentine, St. Francis Hospital, Pittsburgh. The theme of the discussion was: What are the underlying principles involving personnel, organization and service, which should be recognized to assure adequate and efficient nursing care for every patient regardless of his social status or physical condition? "The Cost of Hospital Care" was discussed by Matthew O. Foley, editor, *Hospital Management*, Chicago. The keynote of his discussion was: What can hospitals do to keep their charges as low as possible, consistent with good service to the patient and without lowering the general efficiency of the institution?

The Thursday afternoon session was devoted to an open forum, with Miss Turnbull presiding. The address of the afternoon was given by Dr. Thyrsa W. Amos, dean of women, University of Pittsburgh, on "The New Leadership." Following Doctor Amos' address, miscellaneous round table questions were introduced by association members for discussion.

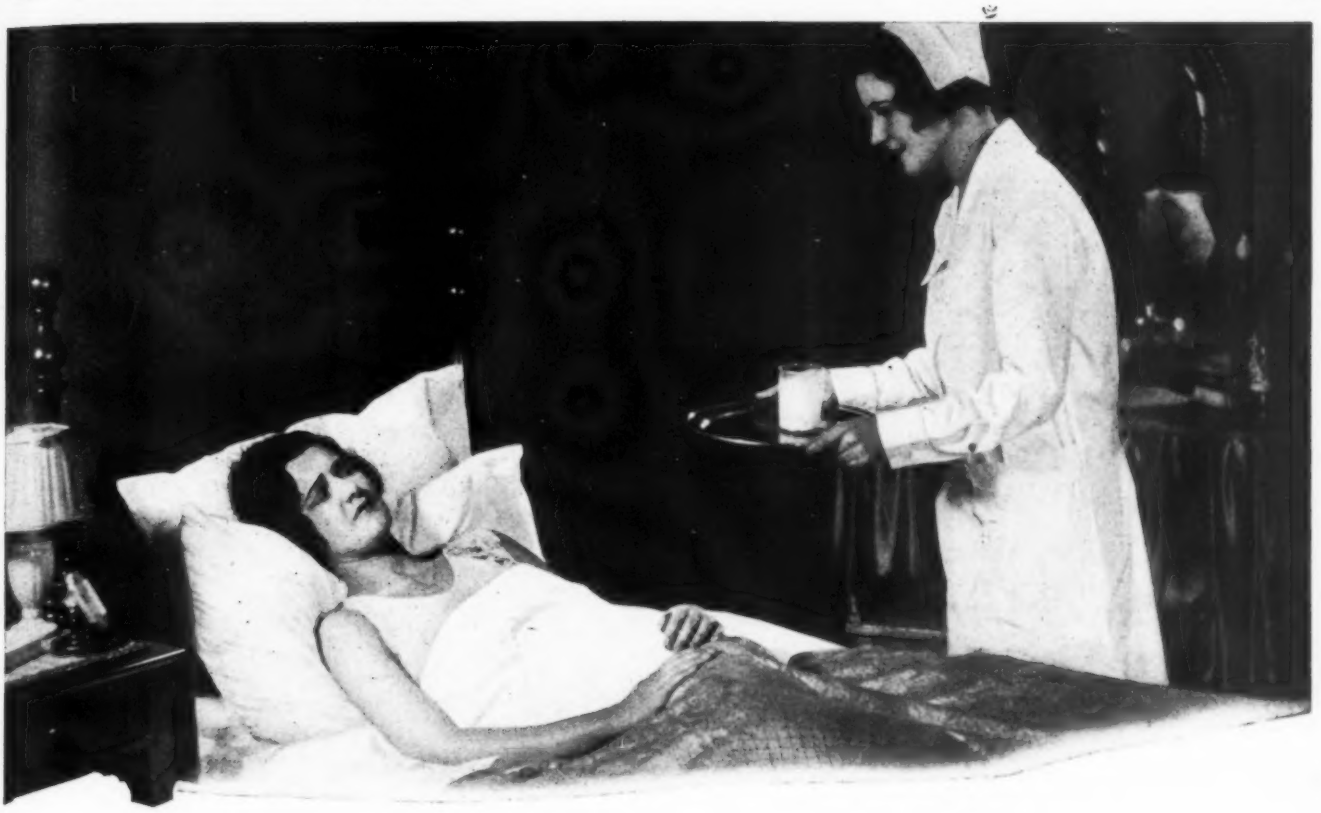
President's Address a Feature

President Shaw presided at the opening session on Tuesday afternoon. The invocation was given by the Rev. Dr. Carl August Voss, German Evangelical Protestant Church, Pittsburgh, followed by the address of welcome to the delegates given by a representative of the Hon. Charles H. Kline, mayor of Pittsburgh. S. D. Hunter, superintendent Washington Hospital, Washington, Pa., responded to the address.

Sister Irenaeus, second vice-president, presided at the Wednesday morning session, at which time the presidential address was given by Miss Shaw.

The association dinner was held in the William Penn Hotel on Wednesday evening. The address of the evening was given by Dr. Francis H. Green, headmaster, Pennington Seminary, Pennington, N. J., who chose for his subject, "Together."

A business session on Thursday afternoon, at which the officers for the coming year were installed, brought to a close the 1930 meeting of the Hospital Association of Pennsylvania.



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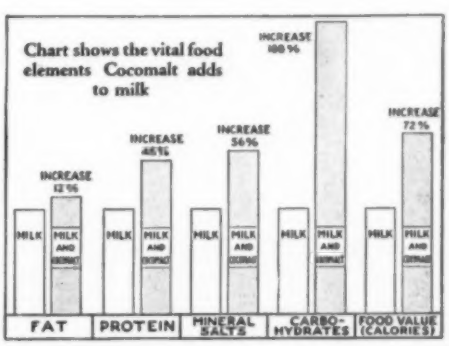

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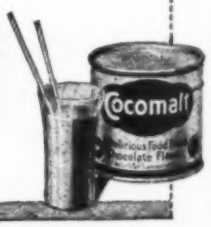

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News of the Month

Catholic Hospital Administrators of Pennsylvania Meet

With approximately a hundred administrators and hospital workers registered, the Catholic Hospital Association of Pennsylvania held its annual convention at Mercy Hospital, Pittsburgh, March 24.

The convention opened with Holy Mass in the chapel of Mercy Hospital, after which registration was held for the delegates to the convention. The opening address was given by the Rt. Rev. Hugh C. Boyle.

Following the appointment of committees, Sister M. Irenaeus, Providence Hospital, Beaver Falls, Pa., president of the association, delivered the presidential address. The Rev. Alphonse M. Schwitalla, S.J., dean, St. Louis University school of medicine and president of the Catholic Hospital Association of the United States and Canada, then spoke on "The Catholic Hospital of the United States and Canada."

"Our Defects: How Shall We Correct Them?" was the subject of a practical talk given by Dr. Malcolm T. MacEachern, director, hospital activities, American College of Surgeons, Chicago.

The afternoon session opened with a round table on "Patients' Complaints" led by John A. McNamara, executive editor, THE MODERN HOSPITAL. A second round table discussion was led by M. H. Eichenlaub, superintendent, Western Pennsylvania Hospital, Pittsburgh, on "Purchasing and Staff Problems."

The closing address was given by Dr. George J. Wright, Pittsburgh, on "The Psychology of Caring for the Patient." This was followed by the report of the secretary-treasurer, Sister M. Mechtilde, Mercy Hospital. Election of officers for the coming year brought the session to a close. Sister M. Carmelita, superintendent, Du Bois Hospital, Du Bois, Pa., was elected president.

Chicago Association Changes Name

In the future, the Chicago-Cook County Hospital Association will be known as the Chicago Hospital Association.

J. Dewey Lutes, superintendent, Washington Boulevard Hospital, Chicago, is president of the association, and Veronica Miller, superintendent, Henrotin Hospital, Chicago, is vice-president.

Johns Hopkins Hospital Needs $3,000,000

The Johns Hopkins Hospital, Baltimore, must have an immediate increase in its endowment of at least $3,000,000, unless the institution is to curtail its work greatly or face the gradual depletion of its existing endowment, according to a statement made by Dr. Winford H. Smith, director of the board of trustees.

For the fiscal year that ended June 30, 1929, the institution had a total deficit of $113,025.62, and according to the budget needs the deficit for the next fiscal year will be over $100,000, the report stated.

One of the chief reasons assigned for the operating deficits and the need for a greater endowment at once was the fact that the demand for and the cost of modern hospital service has greatly increased during the past few years, the *Baltimore Evening Sun* states. Endowments that have come to the hospital from time to time have not kept pace with the mounting costs. Another factor in the situation is that of all the patients treated, both public and private, 43 per cent were given entirely free treatment.

The specific departments mentioned as being in need of urgent help are the Harriet Lane Home, the woman's clinic and the out-patient department.

Westchester County Group Elects Officers

At their annual meeting held on January 16, the hospital group of Westchester County, New York, elected the following officers: Miss B. M. Bamber, R.N., superintendent of nurses, Grasslands Hospital, Valhalla, president; Austin Jay Shoneke, superintendent, New Rochelle Hospital, New Rochelle, vice-president; Miss E. L. McClure, R.N., superintendent, Blythedale Home for Convalescent Crippled Children, White Plains, secretary-treasurer.

Gold Medal Offered as Recognition of Outstanding Nursing Service

A gold medal, offered by W. L. Saunders II of Philadelphia in memory of his father, is to be presented to the nurse who has made to the profession or to the public the most outstanding contribution, either in personal service or in the discovery of some nursing technique that may be to the advantage of the patient and of the profession. Writing is the only kind of service that is excluded. The first award will be made during the biennial convention of the American Nurses' Association in Milwaukee, June 9 to June 14.

Any nurse who is a member of the American Nurses' Association is eligible for the medal. The name of any person to be recommended for the award may be submitted by a state association or by individuals, either to A. N. A. headquarters, to the president of one of the three national organizations or to Mr. Saunders. The recommendation should state accurately the nurse's name, address and official position and it should include a complete statement of her professional background and experience, together with a history of the achievement for which the award is to be made. Recommendations for this first award must be in by May 15. No names can be considered after that date.

The judges for the award to be made at the forthcoming biennial will be a committee comprising Mr. Saunders and the presidents of the three national nursing organizations. Later this committee will be enlarged to include two nurses from each of the national nursing organizations and three persons who are not nurses to be appointed by the joint board of directors.

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News of the Month

Plans Drawn for Philadelphia Woman's Hospital

A hospital building costing $1,000,000 is the plan of the Woman's Hospital of Philadelphia.

The Woman's Hospital is the result of the consolidation of the Woman's Hospital and the West Philadelphia Hospital for Women. The new building will be erected at the site of the present West Philadelphia buildings, at Parrish, Preston and Ogden Streets.

The first floor of the hospital will be devoted to outpatient and social service departments, administration offices, laboratory and x-ray departments, the dining room, assembly room and nurses' instruction room. The surgical and gynecological departments, the wards, maternity quarters and the nurses' rooms will be on the upper floors.

A five-story building is proposed, and provision will be made for adding two more stories if necessary.

Interesting Program Announced for Hospital Social Workers

The annual meeting of the American Association of Hospital Social Workers will be held in Boston, June 7 to 14. The program committee, Elizabeth Rice, Boston Dispensary, chairman, has arranged a comprehensive program which includes the annual business meeting, general sessions for medical social workers, group discussions for the interchange of experience and ideas on the more technical subjects and joint sessions with the other divisions of the National Conference of Social Work, of which the American Association of Hospital Social Workers is an associate group. The committee on local arrangements, O. M. Lewis, Massachusetts General Hospital, chairman, is arranging for recreational opportunities and week-end entertainments for June 7 and 8.

Preceding the annual business meeting on June 7, the executive committee will meet in all day session. The program meetings will open Tuesday, June 10, when joint sessions will be held with the health and family division of the National Conference of Social Work. Community health and problems of relief will be discussed. The same afternoon the awards in the case competition will be announced, and there will be a general discussion of the cases submitted. Because of the general interest in social recording, this promises to be a worth while meeting. For the past several years, the association has conducted a competition for its members, hoping thereby to assemble and analyze the actual present practice in the recording of medical social work and also to stimulate interest in this field. The results have been of value to the entire field of social work in providing teaching material and to medical social workers especially, in developing standards for recording.

On Wednesday, June 11, there will be a joint session with the Travelers Aid Society, and the subject under discussion will be "The Sick Transient."

Thursday afternoon, June 12, will be given over to a series of five or six small group discussions on questions of specific interest to those engaged in medical social work, including such subjects as social work with cancer patients; with patients under care in eye clinics; special problems of the social worker in the tax-supported hospitals; methods of supervision; field training for students from schools of social work.

This year the Massachusetts General Hospital is celebrating the twenty-fifth anniversary of the establishment of social work in that institution. On Thursday evening, June 12, the association will meet with the Massachusetts General Hospital social service anniversary committee at a banquet at the Hotel Somerset. Dr. Richard Cabot, Boston, and Mrs. John Glenn, New York, will speak.

Friday afternoon, June 13, Mabel Wilson, Children's Hospital, Boston, will discuss "The Medical Placement of the Child Outside His Own Home" at a general meeting of the association, and the final meeting on Saturday, June 14, will be held jointly with the Division on the Organization of Social Forces, the subject for discussion being "The Use of the Social Service Exchange."

Headquarters for medical social workers are the Hotel Statler. Reservations should be made through J. Paul Foster, 80 Federal Street, Chamber of Commerce, Boston. Special arrangements for reduced railroad fares have been made, and certificates will be sent on application of members at headquarters office, 18 East Division Street, Chicago.

Massachusetts Homeopathic Hospital Changes Name

The name of the Massachusetts Homeopathic Hospital, Boston, has recently been changed to the Massachusetts Memorial Hospitals.

The hospital, which has seen fifty-six years' service, has grown from a fourteen-bed institution to a hospital of 530 beds, according to the *Journal of the American Medical Association.*

The hospital has announced a program of expansion that will include removal to a new location on Commonwealth Avenue Heights and the construction of new buildings.

Patients of New York Hospital Will Benefit by New X-Ray Machine

The United Hospital Fund recently announced that one of its member institutions, the Woman's Hospital, New York City, has installed a $10,000 high frequency 200,000 voltage x-ray machine for the treatment of cancer.

The machine will be available for patients unable to pay specialists' fees as well as for the pay patients of the hospital. It has been installed in the new clinic building of the hospital which was opened last Spring and which has the unique feature of private examining rooms for each patient.

The hospital possesses 278 milligrams of radium purchased at a cost of $28,000, and clinic patients suffering from cancer can be sent to the wards from the clinic and given radium treatment.

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How about hospitals that have to serve middle classes?

Too much thought and too much discussion have been given to the sad plight of the middle classes who must pay for hospital service . . . and too little to the sad plight of the hospitals that must give it.

For it is as true that many of them are unable to give first class service in exchange for middle class charges as that many patients are unable to pay first class fees.

Particularly this is the case with older hospitals, for the modern ones have been expressly built to cope with this situation; their layouts and their equipment have been planned to provide the greatest service most economically.

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News of the Month

Seventh Day Adventist Hospital Is Opened in Denver

Porter Sanitarium Hospital, Denver, Colo., a Seventh Day Adventist institution, was formally opened for the reception of patients on February 16.

The hospital is named after Henry M. Porter, Denver philanthropist, who donated the forty-acre tract of land on which the new building is located.

The hospital has 100 beds. Radio and telephone connections have been installed in all of the rooms of the four-story institution. Complete x-ray and laboratory equipment has also been installed.

New General Hospital Begun at Delhi

On January 10, the Viceroy of India laid the foundation stone of the new General Hospital at Delhi, which will meet a great need for hospital facilities in Delhi.

The first unit of the new hospital will be erected over a period of two years. It will cost 40 laks (£300,000) and will provide for 264 beds, while the second unit, which will increase the facilities to 364 beds, will cost 75 laks (£562,500).

At the opening ceremony the Viceroy referred to the problem of obtaining efficient nurses in India, due to the fact that Hindu women are reluctant to engage in that occupation.

Chicago to Have New Foot Hospital

An $800,000 combination foot disorder hospital and nurses' home will be erected in Chicago, according to an announcement made recently by the General Foot Hospital Association.

The new structure will be nine stories high and will be erected on the site of the old Frances E. Willard National Temperance Hospital which the foot association bought some time ago.

On the ground floor of the new building will be a large cafeteria and the out-patient clinic. From the third to the seventh floor, inclusive, will be the nurses' quarters. The eighth story will be the hospital floor, containing fifty beds, while on the top floor will be found the operating rooms, the x-ray laboratory and similar departments.

Coming Meetings

Alabama Hospital Association.
President, Dr. French Craddock, Sylacauga.
Secretary, Lily B. Wells, Eufaula.
Next meeting, Montgomery, April 16.

American Association of Hospital Social Workers.
President, Edith M. Baker, Washington University Dispensary and Allied Hospitals, St. Louis.
Executive secretary, Helen S. Beckley, 18 East Division Street, Chicago.
Next meeting, Boston, June 7-14.

American College of Surgeons.
President, Major General Merritte W. Ireland, Surgeon General, U. S. Army, Washington, D. C.
Director general, Dr. Franklin H. Martin, 40 East Erie Street, Chicago.
Next meeting, Philadelphia, October 13-17.

American Hospital Association.
President, Dr. Christopher G. Parnall, Rochester General Hospital, Rochester, N. Y.
Executive secretary, Dr. Bert W. Caldwell, 18 East Division Street, Chicago.
Next meeting, New Orleans, October 20-24.

American Nurses Association.
President, S. Lillian Clayton, Philadelphia General Hospital, Philadelphia.
Secretary, Susan C. Francis, Children's Hospital, Philadelphia.
Next meeting, Milwaukee, June 9-14.

American Occupational Therapy Association.
President, T. B. Kidner, 175 Fifth Avenue, New York City.
Secretary-treasurer, Mrs. Eleanor Clarke Slagle, 175 Fifth Avenue, New York City.
Next meeting, New Orleans, October 20-24.

American Protestant Hospital Association.
President, Luther G. Reynolds, Seattle General Hospital, Seattle, Wash.
Executive secretary, Dr. Frank C. English, Hyde Park, Station O., Cincinnati.
Next meeting, New Orleans, October 17-20.

American Society of Clinical Pathologists.
President, Dr. J. H. Black, Dallas, Texas.
Secretary-treasurer, Dr. H. J. Corper, Metropolitan Building, Denver, Colo.
Next meeting, Detroit, June 20-23.

Children's Hospital Association of America.
President, Dr. Howard Childs Carpenter, 1805 Spruce Street, Philadelphia.
Secretary-treasurer, Bena M. Henderson, Milwaukee Children's Hospital, Milwaukee.
Next meeting, New Orleans, October 20-24.

Connecticut Hospital Association.
President, Dr. B. Henry Mason, Waterbury Hospital, Waterbury.
Secretary, Maud E. Traver, R.N., General Hospital, New Britain.
Next meeting, Norwalk, May 7.

Georgia Hospital Association.
President, Dr. C. S. Lentz, University Hospital, Augusta.
Secretary, J. B. Franklin, Georgia Baptist Hospital, Atlanta.
Next meeting, Augusta, May 13.

International Catholic Federation of Nurses.
President, Alice M. O'Halloran, 847 Wynnewood Road, Overbrook, Philadelphia.
Executive secretary, Margaret E. Molloy, International Headquarters, Suite 130, 430 South Michigan Avenue, Chicago.
Next meeting, Milwaukee, June 6-8.

Louisiana Hospital Association.
President, Louis J. Bristow, Southern Baptist Hospital, New Orleans.
Next meeting, New Orleans, April 22.

Midwest Hospital Association.
President, Dr. Fred S. Clinton, Oklahoma Hospital, Tulsa, Okla.
Secretary, Walter J. Grolton, Missouri Pacific Hospital, St. Louis.
Next meeting, Tulsa, Okla., April 25 and 26.

Minnesota Hospital Association.
President, J. J. Drummond, Worrell Hospital, Rochester.
Secretary, J. G. Norby, Fairview Hospital, Minneapolis.
Next meeting, St. Paul, May 23 and 24.

National League of Nursing Education.
President, Elizabeth C. Burgess, Columbia University, New York City.
Secretary, Nina D. Gage, 370 Seventh Avenue, New York City.
Next meeting, Milwaukee, June 9-14.

National Organization for Public Health Nursing.
President, Anne L. Hansen, 181 Franklin Street, Buffalo, N. Y.
Director, Katherine Tucker, 370 Seventh Avenue, New York City.
Next meeting, Milwaukee, June 9-14.

Hospital Association of New York State.
President, Dr. C. W. Munger, Grasslands Hospital, Valhalla.
Secretary, Boris Fingerhood, United Israel-Zion Hospital, Brooklyn.
Next meeting, New York City, May 8-10.

North Carolina Hospital Association.
President, Dr. D. A. Garrison, Gastonia.
Secretary, Dr. V. L. Grady, Wilson.
Next meeting, Gastonia, May 27-29.

Ohio Hospital Association.
President, Frank A. Hoover, Alliance City Hospital, Alliance.
Secretary, J. R. Mannix, Elyria Memorial Hospital, Elyria.
Next meeting, Cincinnati, April 29 and 30.

Ontario Hospital Association.
President, R. H. Cameron, Toronto.
Secretary, Dr. R. W. Routley, Medical Arts Building, Toronto.
Next meeting, Toronto, October 1-3.

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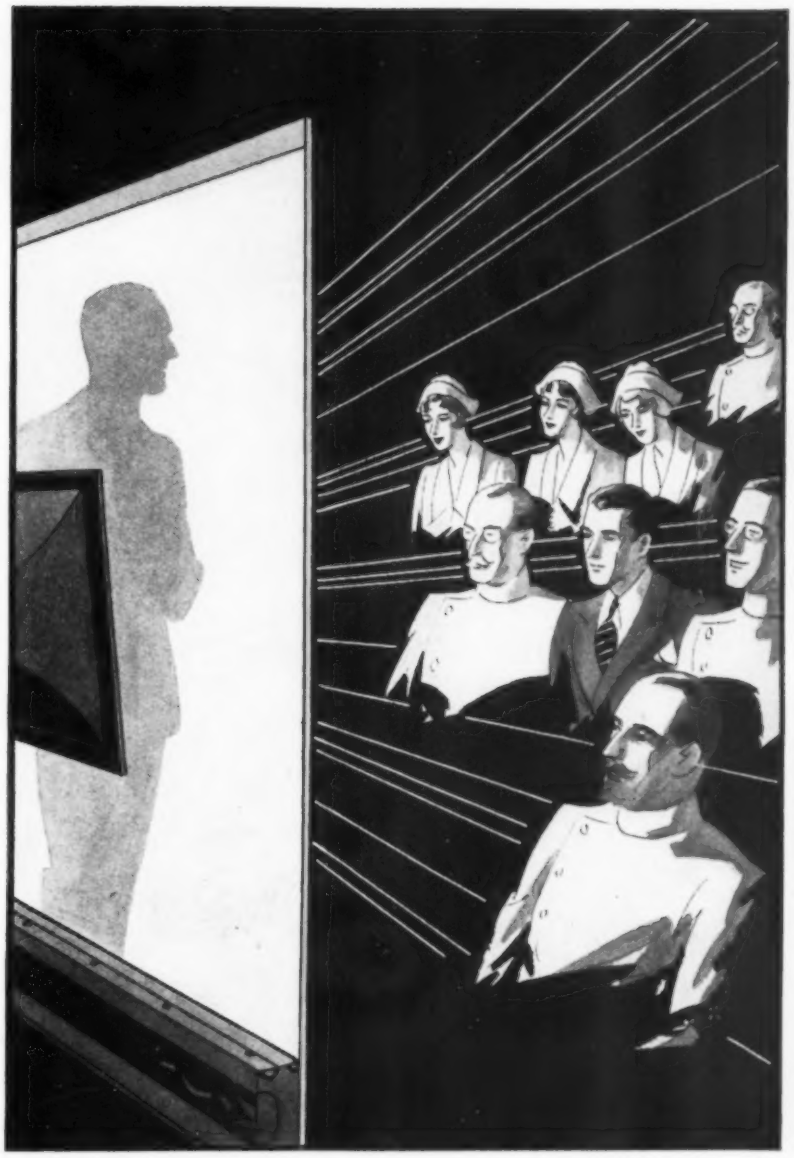

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News of the Month

Catholic Nurses Choose Milwaukee as Convention City

The sixth annual convention of the International Catholic Federation of Nurses is to be held on June 6, 7 and 8 at Milwaukee, with headquarters at the Pfister Hotel.

Alice M. O'Halloran, R.N., Philadelphia, is president of the federation; Mae E. Colton, R.N., St. Francis' Hospital, Pittsburgh, first vice-president; Anne E. Weisenhorn, R.N., Quincy, Ill., second vice-president; M. Evelyn Donnely, R.N., Brooklyn, treasurer, and Margaret E. Molloy, Chicago, executive secretary.

New York Jewish Hospitals Have Merged

The Jewish Maternity Hospital, 270 East Broadway, New York City, and the Beth Israel Hospital, Livingstone Place, have merged, and in the future the combined hospital services will be known as the Beth Israel Hospital Medical Center.

The Jewish Maternity Hospital will maintain its separate identity as a scientific unit.

Nebraska Organizes Hospital Association

The tentative organization of the Nebraska Hospital Association was effected at a recent meeting held in Omaha.

Representatives of most of the seventeen standardized hospitals of the state were present. The ten institutions becoming charter members of the organization were: the Clarkson Memorial Hospital, the Evangelical Covenant Hospital, Immanuel Hospital, the Methodist Episcopal Hospital and the University Hospital, all of Omaha; the Bryan Memorial Hospital and the Lincoln General Hospital, Lincoln; Falls City Hospital, Falls City; Lutheran Hospital, Beatrice, and the West Nebraska Hospital, Scottsbluff.

A tentative constitution was adopted and the following temporary officers were elected: F. J. Bean, assistant superintendent, the University Hospital, chairman, and Miss J. L. McDonald, supervisor, Clarkson Memorial Hospital, secretary and treasurer.

Paris Also Plans for Patients of Moderate Means

In France as in the United States there are many sick people who are not poor enough to patronize charity hospitals or rich enough to receive treatment in the larger sanatoriums.

To remedy the unfortunate situation in which such persons are placed, a number of philanthropists calling themselves the "Friends of France" have been endeavoring for some time to create a hospital intended for the class described.

A site was chosen near the gates of Paris covering an area of 10,025 square meters, near the Seine, between the Pont de Sévres and the Pont de St. Cloud, and the cornerstone was laid on March 20, the anniversary of the death of Marshal Foch, to whom the hospital was dedicated.

The final plans are not yet completed, and the architect, A. E. Fouqué, is now in America studying the features of modern hospitals.

The tentative plans provide for a five-story building with 300 beds. On the main floor will be the administrative offices, consultation rooms and laboratories. The operating rooms and surgical facilities will be in the center of the top floor. A training school for nurses and a dormitory for hospital employees will be in annexes to the left and right of the main entrance.

The *Journal of the American Medical Association* states that the estimated cost of the institution is $1,400,000.

Hospital Units for Chicago's Crippled Children Are Begun

Ground was recently broken on the campus of the University of Chicago for two new hospital units that will be devoted to the care of crippled and deformed destitute children. The new clinics will be the realization of a ten-year plan of the trustees of the Chicago Home for Destitute Crippled Children.

The new buildings, to be erected at a cost of $600,000, have been made possible by gifts of $300,000 each from Mrs. Gertrude Dunn Hicks and Mrs. Elizabeth McElwee.

Together, the two structures will be the counterpart of the new Bobs Roberts Memorial Hospital for Children, now rising west of the Albert Merritt Billings Hospital. Features of the new structures will be a large playroom under glass and an open air play space on the roof.

New York's Construction Program Includes Hospital Projects

According to an announcement recently made by Governor Roosevelt of New York, the state's $18,803,000 hospital construction program recently authorized by the legislature is going forward steadily and five new hospitals will be completed by September 1, 1931.

The largest of the five proposed hospital additions will be at the Pilgrim State Hospital on Long Island. Twenty-four new buildings and four service tunnels will be erected there at a cost of $8,928,000.

Next in importance is the addition to the Brooklyn State Hospital, to cost $4,500,000. This will include twelve buildings. At the Central Islip State Hospital, additions costing $3,900,000 will be erected.

The $900,000 addition at the Kings Park State Hospital is to be completed by April 1, 1931. The $575,000 Harlem Valley State Hospital additions will also be completed by April 1, 1931.

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"Remember the Maine" was the battle cry of the Spanish-American War of 1898. The dispute over Cuba had reached the acute stage; the spark that precipitated armed conflict was supplied by the blowing up of the U. S. battle ship in Havana harbor. When the smoke of war had cleared the United States flag waved over the Phillipines, Cuba and Porto Rico.

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News of the Month

Duke Hospital Library Will House Interesting Collection

An important feature of the new hospital and medical school now being built on the campus of Duke University, Durham, N. C., is the hospital library, which will occupy three floors of the new building.

The library will contain over 20,000 volumes, according to an announcement made by Dean Davison of the medical school, and will cover all fields of medical science. Among the important sets in the collection will be the library of the late Dr. J. Howell Way on public health and the thirty-one volume shelf of books by Leonardo da Vinci, the Italian artist, who wrote his books in inverted long hand, so that it is necessary to read them with a mirror.

Judith Farrar, Columbia, S. C., has been appointed hospital librarian.

Heads Hospital Body

Frank E. Chapman, director, Mt. Sinai Hospital, Cleveland, has been elected president of the Cleveland Hospital Council, it was recently announced by Guy J. Clark, executive secretary of the council. He succeeds Rev. C. H. LeBlond, director of Catholic charities, who has filled the position for four years.

Tuberculosis Sanatorium Opened in North Carolina

The new $250,000 Forsyth County Tuberculosis Hospital, located near Winston-Salem, N. C., recently completed, has facilities for both white and colored patients and a capacity of 182 beds.

Each ward in the new building has beds for twelve patients, subdivided into compartments of six beds each. The wards have outside exposure and ample window space. Each bed is equipped with radio apparatus. Automatic food conveyors from the kitchen carrying a score of trays into the wards will enable the patients of the hospital to receive their food while it is still hot and palatable.

It is planned to make the hospital the pivot around which an extensive tuberculosis prevention program in Forsyth County will center.

Cincinnati Hospital Establishes Rate for County Patients

According to an announcement made by the assistant city solicitor of Cincinnati, an ordinance will soon be drafted establishing a rate of $5 a day for patients sent to the Cincinnati General Hospital by adjacent municipalities and villages.

Hamilton County, in which Cincinnati is located, has been paying about $50,000 a year for indigent county patients, but according to a recent report, this amount does not cover the necessary expenses for their care. A law was passed permitting villages and other political units to contract for the care of their indigent sick. As a result of this law, village and township officials were notified that contracts must be made direct, in case their citizens desired hospitalization, instead of accepting a lump sum from the county.

Doctor Blackwood to Head Provident Hospital

Rear Admiral Norman J. Blackwood, who retired from the service in January last, has been appointed to the superintendency of the Provident Hospital and Training School, Chicago.

Doctor Blackwood is well known to the hospital field because of his years of distinguished service as commanding officer in charge of naval hospitals and hospital ships.

The Provident Hospital and Training School, in affiliation with the University of Chicago is to become a national teaching center for Negro physicians, nurses and health workers. Recently this hospital secured contributions in excess of three million dollars.

Chicago Dietitians Hold March Meeting

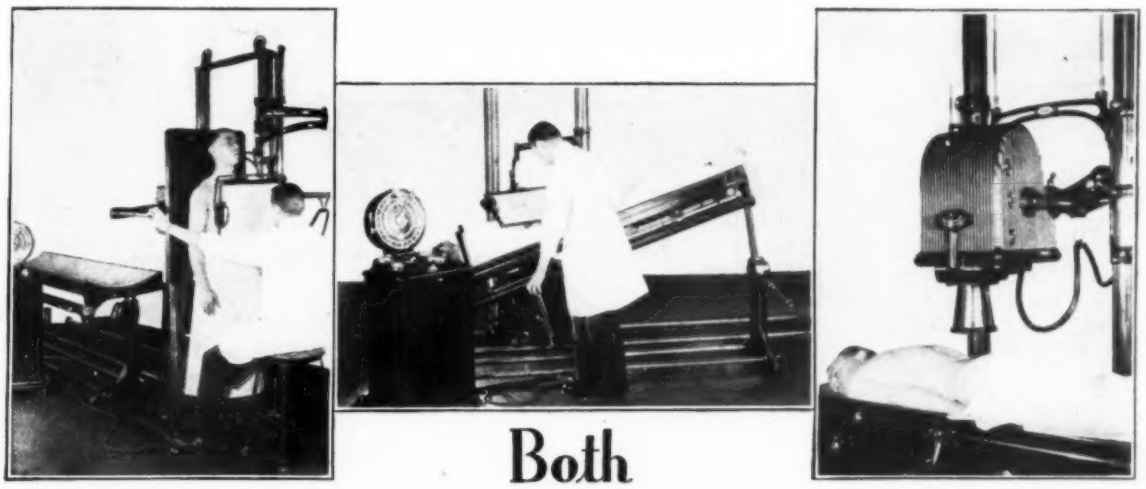
The March meeting of the Chicago Dietetic Association, held on March 19, was devoted to a discussion of dietetics in its relation to modern business. Mrs. Leona Rutledge Carroll, Chicago, gave a talk on the "Dietitian in the Business World," and Mary Finnegan, former dietitian at the University of Michigan Hospital and now production manager of a Chicago restaurant, discussed "An Apprenticeship Training in the Restaurant Field."

The enrollment of thirteen new members was announced at the meeting.

New York Hospitals Contract for Ambulance Service

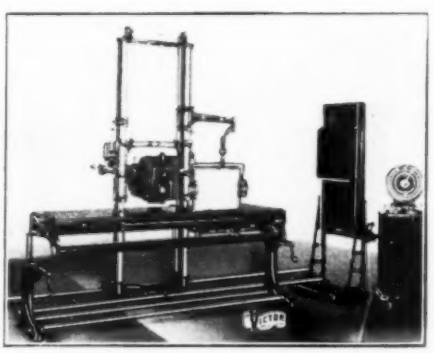
At a conference recently held by the New York City department of hospitals for the purpose of reorganizing its emergency hospital service, the city agreed to appropriate $3,500 for the maintenance of each of twenty-four ambulances operated by eleven private hospitals, according to an announcement made by Thomas J. Cox, deputy hospital commissioner. This sum is $1,000 more than the amount appropriated for each ambulance for the year 1928.

The city appropriates from $7,200 to $7,500 for each ambulance for the city hospitals, which is more than double the amount to be allowed the private hospitals. Because of the high cost of maintaining an emergency ambulance service, several hospitals have abandoned their ambulance service and a large section of the city, including the theatrical district, has to depend on ambulance service from outlying districts.



Both Radiographic and Fluoroscopic Diagnosis with the Victor Shock Proof X-Ray Unit

(IT'S OIL IMMERSED)



IN the development of the Victor Shock-Proof X-Ray Unit, the designers sought a means of combining, in one apparatus, a complete diagnostic service, *both* radiographic and fluoroscopic.

The idea of utilizing the standard radiator type Coolidge tube was early abandoned, for the simple reason that it would restrict the range of service to either radiography or fluoroscopy. So a special Coolidge tube was designed with which a *complete* diagnostic x-ray service is now realized. It is one of the distinctive features of the Victor Shock-Proof X-Ray Unit.

With the tube and the transformer both in the same container (tube head), immersed in oil and sealed, complete insulation is realized, offering absolute protection against high voltage shock at all times. This compact arrangement has resulted also in a flexibility that is unprecedented in x-ray apparatus, permitting the *one tube* to be used both over and under the table, in every position required in radiography and fluoroscopy, including many angles heretofore impossible because of attendant high voltage dangers.

The air-tight sealing of the tube head gives this Victor apparatus another important advantage. It makes this unit practicable for any climate or altitude. Atmospheric variations have absolutely no effect on its operation, so that a given setting of the controls represents the same x-ray value on each and every outfit, regardless of its geographic location.

In fairness to yourself, don't buy anything in the field of x-ray equipment without first learning all about the Victor Shock-Proof Unit. We'll gladly mail an illustrated booklet telling the complete story of this, the greatest development in medical x-ray apparatus since the advent of the Coolidge tube itself. Write us.

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100% electrically safe.
Silent operation.
Self-contained. Compact.
Greater flexibility.
Increased diagnostic range.
Eliminates overhead system.
Longer tube life.
Not affected by altitude or humidity.
Introduces a new principle of control. Consistent results.
Complete diagnostic service.
Unit construction permits variation according to specialty.
Minimizes danger around ether as when setting fractures, etc.
Few retakes — longer tube life.
Same tube used over and under table.

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News of the Month

Cleveland Clinic Announces Plans for New Building

Plans for a $400,000 building to house the work of the Cleveland Clinic Foundation were recently announced by Dr. George W. Crile, president of the institution. The new structure will be located on property owned by the foundation immediately south of the old clinic building which was the scene of the disaster last May.

The old clinic building, which has been subjected to exhaustive tests to determine whether it still harbors traces of the deadly gases that caused the explosion, will be remodeled at a cost of $100,000 and will be used as an administrative building by the foundation.

Four stories of the new building will be constructed now, but the foundations of the structure will be designed ultimately to accommodate eight additional stories. Each floor of the new building will have forty examining units, with a waiting room accommodating about 100 patients. A small dressing room will adjoin each examining room in order to ensure each patient strict privacy.

Saskatchewan Chosen for Canadian Nurses' Meeting

The Canadian Nurses Association is making extensive plans for its general meeting which will be held at Regina, Saskatchewan, from June 24 to 28, with the Hotel Saskatchewan as headquarters.

Plan to Affiliate County Hospital With Four Universities

A plan is afoot to reorganize Cook County Hospital, Chicago, and affiliate it directly with the city's four medical schools.

Under the tentative arrangement the hospital would be divided into five departments and the medical schools of Loyola University, Northwestern University, University of Illinois and the University of Chicago would each be responsible for the administration of one of these departments.

The medical policy commission of the Chicago Medical Society which has initiated the movement presented an outline of the plan to Anton J. Cermak, president of the County Board and requested him to appoint a committee to work out the reorganization, it is said. The plan as outlined by the medical policy commission incorporates the following fundamental points:

1. That the examinations for positions shall, as heretofore, be open to all members of the profession.

2. That the hospital be utilized for teaching to its fullest extent and that postgraduate clinics be developed so that Chicago can be developed as a medical center for the entire country.

3. That statisticians be employed so that comparative figures can be obtained for the five larger divisions of the hospital and greater medical efficiency and service to the patients ensured through friendly rivalry.

4. That opportunities for work in the hospital be given the younger men in the profession from the time they leave the resident service until such a time as they are eligible as attending men.

5. That plans be made for the ultimate development of a proper out-patient department, whereby the burden of actual care in the hospital will be lessened and the work of all free dispensaries, now maintained by adjacent universities, will be concentrated.

Cook County Hospital, with its 3,200 beds, is the largest hospital in the world.

Alabama Hospital Association Will Meet in Montgomery

The Alabama Hospital Association will hold its annual meeting on April 16 at the Exchange Hotel, Montgomery, when a dinner session will be held from 6 to 8 o'clock.

The meeting will be of an informal nature, round table discussions instead of long papers being a feature. Dr. Malcolm T. MacEachern, director of hospital activities, American College of Surgeons, will conduct the discussion, while Dr. French H. Craddock, Sylacauga, president of the association, will preside.

William and Mary College to Build Hospital

Students at the College of William and Mary, Williamsburg, Va., one of the oldest educational institutions in the United States, will benefit by the new hospital that the faculty of the college is planning to erect on the campus in the near future.

The new brick structure will conform to the architecture of the other college buildings, which are of course in the early colonial style. The floor space will be divided into two sections, one for the women students and the other for the men. Private rooms will be included in the plans, though most of the space will be devoted to wards. The building will be steam heated from the central heating plant of the college, and will have all modern hospital facilities.

Foreign Delegates at Congress Available for Lectures

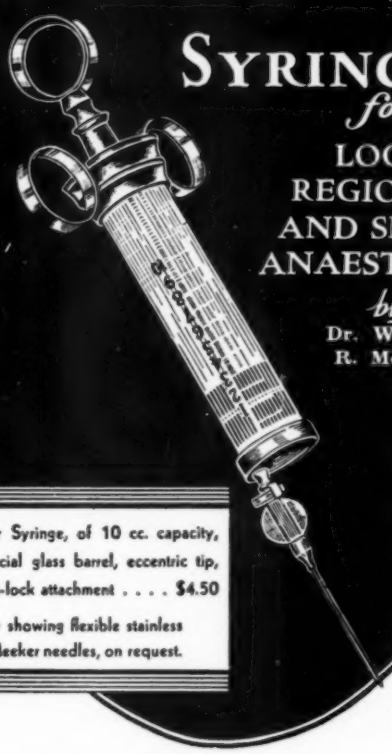
The International Congress for Mental Hygiene, to be held in Washington, D. C., May 5 to May 10, will be attended by many foreign delegates, some of whom will be available for lecture engagements. Their interests cover a wide range, and it is probable that a suitable speaker could be obtained for almost any group interested in human behavior.

The National Committee for Mental Hygiene will be glad to give information about these visitors, their subjects and their possible itinerary. Further information can be obtained from Dr. George S. Stevenson, 370 Seventh Avenue, New York City.

PRESENTING

SYRINGE *for* LOCAL, REGIONAL AND SPINAL ANAESTHESIA

by Dr. William R. Meeker



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Personals

DR. E. P. HURDEN, a cancer specialist, has been appointed director of the Marie Curie Hospital, Hampstead, London, England, the first radium clinic for women in England.

SISTER ENGELBERTA, formerly head of St. Mary's Hospital, East St. Louis, Ill., has been appointed superintendent of the Mercy Hospital, Gary, Ind.

DR. LOUIS N. KATZ, assistant professor of physiology, Western Reserve University School of Medicine, has been appointed physiologist and director of cardiovascular research at Michael Reese Hospital, Chicago.

DR. ARTHUR T. KEMPER, Muncie, Ind., has presented his father's medical library consisting of several hundred volumes to the Ball Memorial Hospital, Muncie, as a nucleus for a scientific library.

SISTER M. AGNES is now superintendent of the new Borgess Hospital, Kalamazoo, Mich.

LILLIAN A. HOLLOHAN has been appointed superintendent of the Indiana Hospital, Indiana, Pa. MISS HOLLOHAN was formerly superintendent at Morton F. Plant Hospital, Clearwater, Fla.

CLEMENTINE V. CHERRY, R.N., has accepted the superintendency of Fitzgibbons Memorial Hospital, Marshall, Mo. MISS CHERRY is a graduate of University Hospital, Kansas City, Mo.

MYRTLE MCMILLAN, R.N., took over the duties of superintendent of Glace Bay General Hospital, Glace Bay, Nova Scotia, on January 1.

EFFIE CONWAY has resigned as superintendent of the Deaconess Hospital, Huntington, W. Va.

MISS O. N. BROOKS, R.N., has accepted the superintendency of the Helena Hospital, Helena, Ark.

EVELYN MCCARRICK has been appointed superintendent of the Tuberculosis Annex, Ancker Memorial Hospital, St. Paul, Minn.

SIGNE WAHLSTROM has been selected as superintendent of the Salem General Hospital, Salem, Ore.

LUCILLE G. WILLIAMS has succeeded IDA TRUMBELL as superintendent of the Wheeler Hospital, Gilroy, Calif.

MYRTLE DE YOUNG has been chosen as superintendent of the new John T. Mather Memorial Hospital, Port Jefferson, L. I.

DR. HARTLEY G. DEWEY was appointed director of the W. B. Lewis Hospital, Yosemite National Park, Calif. DOCTOR DEWEY was formerly associated with DR. M. R. BRADNER at the Warwick Hospital, Warwick, N. Y.

ANN JORGENSEN, R.N., is the newly appointed superintendent of the St. Lucie Sanitarium, Stuart, Fla.

ALMA L. ERICKSON, R.N., has resigned as superintendent of the Mary Sherman Memorial Hospital, Sullivan, Ind.

DR. BERT W. CALDWELL, executive secretary, American Hospital Association, has been chosen to make a survey of hospital facilities in the state of Oklahoma.

DR. B. A. HUGHES is superintendent of the American Oncologic Hospital, Philadelphia, an institution devoted to the treatment of cancer.

JEWEL HARALSON, R.N., is the newly appointed superintendent of St. Mary's Hospital, Athens, Ga.

DR. ARTHUR MACNEAL took over the superintendency of the Berwyn Hospital, Berwyn, Ill., on April 1.

DR. FINDLAY J. FORD has arrived in this country from Glasgow, Scotland, to assume the duties of assistant physician at Barnes Hospital, St. Louis. DR. JUSTIN J. CORDONNIER of Barnes Hospital has gone to London to do research work in the East London Hospital for Children. This is the second year in which there has been an exchange of house physicians between these institutions.

ELLEN CREAMER, R.N., has been appointed superintendent of the Englewood Isolation Hospital, Bridgeport, Conn. MISS CREAMER was formerly connected with the Massachusetts Memorial Hospital, Boston.

DR. ALFRED J. ROACH is superintendent and medical director of the Pureair Sanatorium, Bayfield, Wis. For ten years DOCTOR ROACH was chief of the department of tuberculosis at the Massachusetts State Hospital, Tewksbury, and for seven years superintendent and medical director, Norfolk County Hospital, South Braintree, Mass.

H. D. SHOOK has been appointed superintendent of the El Paso Masonic Hospital, El Paso, Texas. MR. SHOOK has had previous hospital experience at Jackson Memorial Hospital, Miami, Fla., and at St. Luke's Hospital, Duluth, Minn.

DR. F. F. KUMM is the newly appointed superintendent at Fair Oaks Lodge Sanitarium, Wadena, Minn. Before coming to Fair Oaks, DOCTOR KUMM was assistant superintendent of the Minnesota State Sanatorium at Ah-Gwah-Ching.

DR. EPHYM E. SYRKIN has resigned as medical and general superintendent of the Beth Abraham Home for Incurables, New York City, the resignation to take effect on April 1.

ESTHER BATSDORF is the new superintendent at the Lafayette Home Hospital, Lafayette, Ind. MISS BATSDORF, a graduate of the Jefferson School of Nursing, Philadelphia, was superintendent of nurses at the Women's Southern Hospital of that city for several years. She came to the Lafayette Hospital five months ago as superintendent of nurses.

BERTHA HANKS has been selected as superintendent of the new Gordon Hospital, Hermiston, Ore. MISS HANKS was formerly connected with the Multnomah County Hospital, and the Sellwood Hospital, Portland, Ore.

OLIN L. EVANS has succeeded DR. J. E. GRUBE as superintendent of Punxsutawney Hospital, Punxsutawney, Pa. MR. EVANS was formerly head of the Chester County Hospital, West Chester, Pa.

HOSPITAL SERVICE DEMANDS *IN HARDWARE as well as HUMANS*

GRIT

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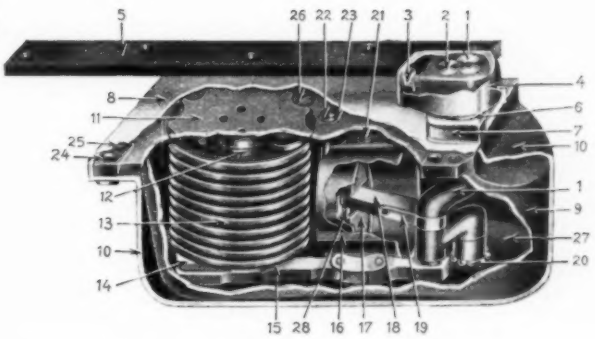

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DOOR STAYS AND HOLDERS

RIXSON

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Personals

ANNE D. SHANNON, R.N., was recently appointed superintendent at Columbia Hospital, Columbia, Pa. MISS SHANNON was formerly assistant directress of nurses at the Graduate Hospital of Medicine, Philadelphia.

AMY D. AADALEN has accepted the position of superintendent at Savanna City Hospital, Savanna, Ill. Before coming to Savanna, MISS AADALEN was assistant superintendent of St. Luke's Hospital, Davenport, Iowa.

MISS N. ROBINSON is now superintendent of the East Liverpool City Hospital, East Liverpool, Ohio. MISS ROBINSON was formerly principal of nurses, Ohio Valley General Hospital, Wheeling, W. Va.

BESSIE D. TERRELL, R.N., is the newly appointed superintendent of Grace Hospital, Richmond, Va.

SISTER REMI HUNT was recently made superintendent of the Hospital of St. Vincent de Paul, Norfolk, Va.

MARY MORRISON, a graduate of St. Luke's Hospital, Jacksonville, Fla., has been selected as the superintendent of the Georgia Infirmary, Savannah, Ga., to succeed HONOR BURKE, resigned.

ELEANOR BERNHARD has accepted the superintendency of the Hospital and Home for Crippled Children, Newark, N. J. Before accepting her present position, MISS BERNHARD was assistant superintendent at the new Presbyterian Hospital in Newark.

THELMA K. KELM, R.N., has taken charge of the San Juan Hospital, Farmington, N. M., an Episcopal mission hospital. MISS KELM, a graduate of Wheatland General Hospital, Wheatland, Wyo., was with the Good Samaritan Hospital, Los Angeles, before coming to Farmington.

MAUDE L. JOHNSTON, superintendent of the Genesee Hospital, Rochester, N. Y., for the past twenty-five years, has asked to be relieved of her responsibilities, but will continue in her present position until her successor has been appointed.

ELIZABETH M. REYNOLDS has been appointed superintendent of nurses at the Charles T. Miller Hospital, St. Paul, Minn., to succeed BESSIE BAKER, R.N. MISS REYNOLDS came to St. Paul from the Memorial Hospital, Ithaca, N. Y., where she was superintendent of nurses, a position she has also held at the Union Memorial Hospital, Baltimore.

W. MARION SMITH has been appointed superintendent of the New York Infirmary for Women and Children instead of the Woman's Hospital, New York City, as stated in THE MODERN HOSPITAL for March.

MARCELLUS E. WINSTON, Rocky Mount, N. C., will be superintendent and professor of hospital administration of the new hospital and medical school at Duke University, Durham, N. C.

NAOMI HUNTER, Lancaster, Pa., will be superintendent of the new State Hospital for Crippled Children, to be opened soon at Elizabethtown, Pa.

T. B. KIDNER, New York City, has been elected president of the American Occupational Therapy Association to succeed the late Dr. C. FLOYD HAVILAND. MR. KIDNER was the first president of the association and held the office for several years.

DR. THOMAS R. PONTON has resigned as director of the Illinois Masonic Hospital, Chicago. His resignation will take effect May 1, and he has accepted the superintendency of Lord Lister Hospital, Omaha, Neb.

DR. STEPHEN R. DOUGLASS has resigned as superintendent of the Marion County Tuberculosis Hospital, Indianapolis. DR. WILLIAM MCQUEEN has been appointed as temporary successor to DOCTOR DOUGLASS.

LOUZILLA BEERY, formerly assistant superintendent of the Bluffton Community Hospital, Bluffton, Ohio, has been named superintendent of that institution to succeed MARTHA GRABER.

GEORGE W. MILLER has accepted the superintendency of the Morningside Hospital, Tulsa, Okla.

RUTH ROGERS is the new superintendent of the Montgomery Memorial Sanatorium, Charleston, Ill. MISS ROGERS will succeed MRS. GEORGE FINDLEY.

CARL A. BRIMMER has resigned as superintendent of the Jamison Memorial Hospital, New Castle, Pa.

HOWARD E. HODGE has resigned the superintendency of the Kentucky Baptist Hospital, Louisville, Ky.

LOUIS COOPER LEVY, head of the Jewish Hospital of Cincinnati for ten years, has resigned.

DR. HENRICUS J. STANDER, associate professor of obstetrics, Johns Hopkins University School of Medicine, Baltimore, has been appointed professor of obstetrics and gynecology at Cornell University and head of these departments at the New York Hospital. DOCTOR STANDER will remain at Johns Hopkins until September, 1931, and will act as adviser to the New York Hospital in the development of its woman's clinic as part of the plant of the New York Hospital-Cornell Medical College Association.

DR. JOHN F. O'BRIEN recently was appointed assistant superintendent of the Boston City Hospital and will be in charge of the tuberculosis unit at Mattapan.

DR. WALTER H. MADDUX, Kansas City, Mo., has been appointed pediatrician in charge of the children's clinic of Provident Hospital, Chicago, and has been awarded a fellowship by the Rosenwald Fund which will enable him to pursue graduate study at the University of Chicago.

LUCILE SHAWVER was recently appointed superintendent of the Yuma Hospital, Yuma, Ariz. MISS SHAWVER was formerly surgical supervisor at the Santa Monica Hospital, Santa Monica, Calif.

V. A. MOORE is now superintendent of the Ithaca Memorial Hospital, Ithaca, N. Y.

MARY MARGERUM, a member of the Ohio State Examining Board for Nurses, has accepted the superintendency of the New City Hospital, Fostoria, Ohio.

Design by James B. Clow & Sons, patents pending

The New Clow HOSPAN Closet

In hospitals equipped with Clow Hospan closets, a very unpleasant duty of the nurses is made easier. With Hospan closets installed in every patient's room or ward bathroom, carrying bed pans through halls to distant cleansing rooms is avoided.

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Showing ledges for resting bed pan —and outlet for cleansing jet

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News of the Month

San Francisco Plans New Hahnemann Hospital

A new Hahnemann Hospital, to take the place of the present structure maintained by the University of California in San Francisco, is to be begun early this Spring, and it is the hope of the trustees and physicians that the new building can be opened by the first of next year.

Negotiations have been in progress for some time between the trustees of the Hahnemann Hospital and the University of California regents for the transfer of the hospital back to the trustees, since it is felt that the maintaining of a hospital is not a part of the educational work of a university and that all such work should be carried on by outside institutions.

The new hospital will cost approximately $250,000 and will have a capacity of seventy-five beds.

Cincinnati to Coordinate Its Hospitals With Its Medical School

A plan that will result in closer cooperation between the various county and city hospitals and the medical college of the University of Cincinnati is being adopted by the city of Cincinnati.

Under the contemplated arrangement, Dr. A. C. Bachmeyer, dean of the medical school and superintendent of the Cincinnati General Hospital, will be the coordinating officer and will have under his general supervision the tying up of the work of all the city and county hospitals with that of the medical college.

Marquette Hospital Will Close in April

Marquette University, Milwaukee, is closing its hospital April 1 and will retire from the field of hospital service for the present.

Leysin Factory-Clinic Provides Work for Tuberculous Patients

At Leysin, Switzerland, where tuberculous patients are given Doctor Rollier's famous sun treatment, work is being resumed on the International Factory-Clinic begun in 1914 and interrupted by the war. This establishment is being built for the purpose of providing a place where indigent patients suffering from surgical tuberculosis will benefit by having the opportunity to earn their livelihood by easy and remunerative work while continuing their solar treatment.

The special feature of the establishment is that it will be dual—a factory and a clinic. The spacious balconies and porches surrounding the building will be fitted up as workshops fully exposed to the sun and air. The invalid workmen will make small pieces of equipment, especially spare parts for the use of factories and workshops that have promised the clinic their cooperation. Work that demands more effort will be reserved for convalescents, who will carry out their "work-cure" in a specially fitted shop on the ground floor of the clinic.

If funds permit, it is planned to devote a whole floor to an international school of commerce, where young men will obtain an official diploma. The plan has met with the approval of many directors of schools of commerce, who have offered their support. The advantages of this school are twofold—the students will receive both a practical and a theoretical education, in that they will be initiated into the financial working of a business and will be taught how the establishment is administered.

The top story of the factory and the solarium, which is a flat roof where the patients are constantly exposed to the full effects of sun and air, will be devoted to experimental observation of the physiologic effects of work under exposure to full sunshine. Here, in a series of laboratories 4,500 feet above sea level, a team of research workers will perform the necessary tests on respiration, excretion, metabolism, fatigue and other factors allied with working capacity.

Another feature of the factory-clinic will be evening courses in modern languages.

This venture in the treatment for tuberculosis will give needy patients an opportunity of consolidating their treatment with their preparation for earning their living in a normal way when they return to active life.

Cuban Health Department Institutes Test for Domestics

Havana, Cuba, will soon have a clinic where servants, nurses, cooks and employees who handle food will be examined for tuberculosis, diseases of the skin and blood, and intestinal parasites, according to a statement issued by the Department of Health published in the *Diario de la Marino* of Havana.

All domestic servants must be vaccinated against typhoid, and the clinic will issue a certificate of good health that the servants may exhibit when applying for positions.

New York Babies' Hospital Has New Quarters

The Babies' Hospital of the City of New York, the pediatric teaching center for the College of Physicians and Surgeons of Columbia University, is now established in the latest unit of the New York Medical Center—a twelve-story building at One Hundred and Sixty-Seventh Street and Broadway.

The living quarters for nurses are on the second and third floors of the new building, while four woman interns are housed on the fourth floor. On this floor are also an eight-bed ward and a large lecture room. Older boys are given treatment on the fifth floor and older girls on the sixth floor. The seventh and eighth floors are devoted to very young babies, and on the twelfth floor are two complete playgrounds and a roof garden.

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DIETETICS AND INSTITUTIONAL FOOD SERVICE

Conducted by ANNA E. BOLLER, Central Free Dispensary at Rush Medical College, Chicago

Applying the Rules of Nutrition to Hospital Feeding Problems*

By KATE DAUM, Ph.D.
Assistant Professor of Nutrition, University Hospitals, Iowa City, Iowa

THE recent and, at times, spectacular discoveries in the field of nutrition have proved of general interest and have become a part of the mental equipment of the average individual. Food is now considered an important agent in keeping people well, in aiding recovery from disease and, in fact, in curing disease.

In the institutional field and particularly in the hospital, this change in attitude has been due partly to the interest aroused in these scientific discoveries and partly to the fact that food cost has gone up so tremendously that the food budget is being scrutinized as carefully as the rest of the hospital budget for waste and for needless expenditures. At one time it was no doubt good business for the hospital to pay its employees in food. Now, in view of increasing food costs and higher standards, the waste of such a system is apparent.

Stress should be laid on the need for an adequate diet for every person for whom the hospital furnishes food, a diet adequate in protein, both the amount and the kind and adequate in energy value, in minerals, in vitamins and in bulk. Whether an institution has to hold to minimum or maximum standards of adequacy depends, of course, upon such factors as the amount of money available, the groups fed and the average length of the patients' stay in the hospital. Certainly a children's hospital should have, regardless of expense, a diet that will permit and stimulate the maximum physical development of its patients.

Dietary Training for Patients

An argument that is frequently advanced against the need of the hospital serving an adequate diet is that it means superimposing higher standards than the patients are accustomed to, with an attendant waste of the unfamiliar articles.

The answer to this argument is that with the hospital a preventive rather than a purely curative agency, the adequate diet and what it teaches are exceedingly important. We have this proved to us almost daily. A patient on entering the hospital refuses to eat any green vegetables or to drink milk. Upon inquiry we find that he has never eaten vegetables or taken milk. After explanations and urgings and with the example of the rest of the ward before him, the patient finds that he likes both vegetables and milk and voluntarily promises us to use them in his diet at home. Patients who have special diet care are usually so impressed with what can be accomplished that they ask for suggestions in planning the family food, especially if there are children. Because the hospital both consciously and unconsciously teaches preventive measures in all kinds of living, it should make its food function in the same way.

Serving the Various Groups

A second argument against the need of the hospital to serve an adequate diet is that the relatively short stay of the patient in the hospital makes the food unimportant, that no deficiency disease could develop and that little can be done in an educational way for the patients who stay the average of from ten to fifteen days. The same argument may also be applied to much of the medication. Therefore, if food is to be thought of as a therapeutic agent, the absurdity of the argument is apparent.

But the hospital has a definite duty to certain groups. The first group is the children. Every child should leave the hospital better nourished than when he entered, and he or his parents should be given a definite idea of how to obtain his maximum growth and health. Children from five years on are interested and learn easily the simple nutrition lessons. The second group is composed of patients whose recovery, for psychological or physical reasons, is dependent upon food. The third group is the student nurses. These are young, still growing individuals who will remain in the institution for approximately three years in the final period of their maturity. They should not only have every chance for complete and normal maturing, but they should learn by observation and by experience what foods are important to their own health and to the health of their patients.

The medical intern also must be considered not only from the standpoint of his own health but because it is necessary that he know the importance of food in the handling of disease.

Hospital employees need be considered less because,

*Read at the meeting of the Iowa State Hospital Association, Waterloo, February 27, 28.

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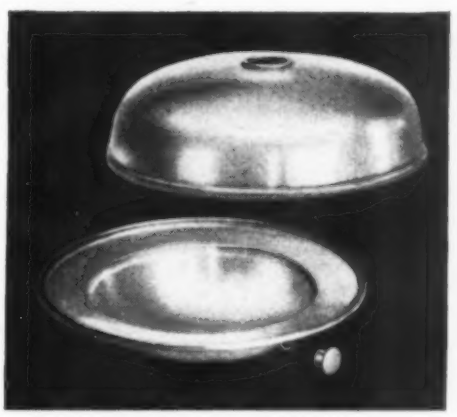

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after all, they choose to work for the hospital. However, if the hospital assumes the responsibility of paying them in food it is to its own best interest to see that they are given food that will promote their good health and that the food is satisfying.

What are sane standards for adequate nutrition and how may they be applied to the hospital? In the matter of the protein intake, there has been a decided shift, particularly in the scientific mind, to a more liberal protein allowance. This is due partly to the studies in pernicious anemia and partly to the experimental work with laboratory and farm animals. These experiments have in general been of two types—that in which growth and development of animals on various kinds of proteins, in various amounts, from the moderate to the exclusive protein diet, have been observed, and that in which has been studied the effect upon the kidney, of various kinds of proteins at various levels, in young and in adult animals, and in man.

These studies have shown the greater efficiency of the milk, meat and egg proteins and the importance of a liberal intake during growth. The second type of experiments and observations has shown that the kidneys, particularly, and other organs, including the heart and blood vessels, are not damaged by high protein of any type or by an all exclusive meat diet. This is reassuring if one is in contact with some of the food enthusiasts who attack animal proteins so vigorously.

A gram of protein per kilogram of body weight or two and two and a half ounces a day for the average woman and man respectively is considered a moderate standard. This is the protein represented in one serving of meat, two eggs, one pint of milk, six slices of bread and a second serving of meat or meat substitute. The protein in such a diet comes from a number of sources, with the largest proportion coming from milk, eggs and meat.

The assurance that each patient is getting his requirement of protein, however, is not the only way to approach this problem. Milk and meat represent the two largest items in this group and represent also two of the largest items in the food budget. In balancing the food budget, from 25 to 31 per cent is allowed for meat, fish, poultry and eggs and about 20 per cent for milk and milk products.

Conditions to Be Met

A number of conditions must be met before it can be said that the hospital is consuming more than the necessary amount of protein in the form of meat.

Are the prices paid for meat reasonable as compared to local prices and market quotations? It is so easy to keep informed of market conditions in order to check the amount the butcher is charging for the handling of the meat. It may be cheaper to have a butcher on the kitchen staff.

Is there some agreement between the price and the quality of the meat? Inspection and comparison will help here. Is there a wise combination of cheap and expensive cuts? Are the preparation and serving such that the meat is edible when it reaches the patient? Are the servings so arranged that there is no large plate waste from any group? If examination shows that these conditions have been met and the meat bill is more than 31 per cent of the total food bill, then the hospital may safely cut down on the amount purchased.

An important factor in the adequate diet for adults and children is milk. It should supply a part of the protein for both and it is high in vitamins A and B. It is also our most important source of calcium. A quart is taken as a desirable standard for the child from infancy to maturity, not as extra food but counted in as part of the regular diet. With milk at twenty-eight or thirty cents a gallon and with skim milk at fifteen cents a gallon, there is no food that has so high a protective and nutritive value and that is so generally liked. For children patients, not only should the quart a day be purchased but the actual consumption of the milk should be checked, including that served in soups, ice cream and other dishes. For adults we use a pint a day per person in the kitchen. A pint then is offered as a beverage.

The consumption of cheese and eggs will vary as more or less meat is used. For children one egg daily is a good standard and one it is always possible to follow. Again they may be served in custard or mixed with potatoes. For adults on the lower meat level, moderate servings once daily as the rule, one and a half to two eggs, will be necessary to bring the protein to a desirable level. This is counting the eggs used in desserts.

Determining Energy Standards

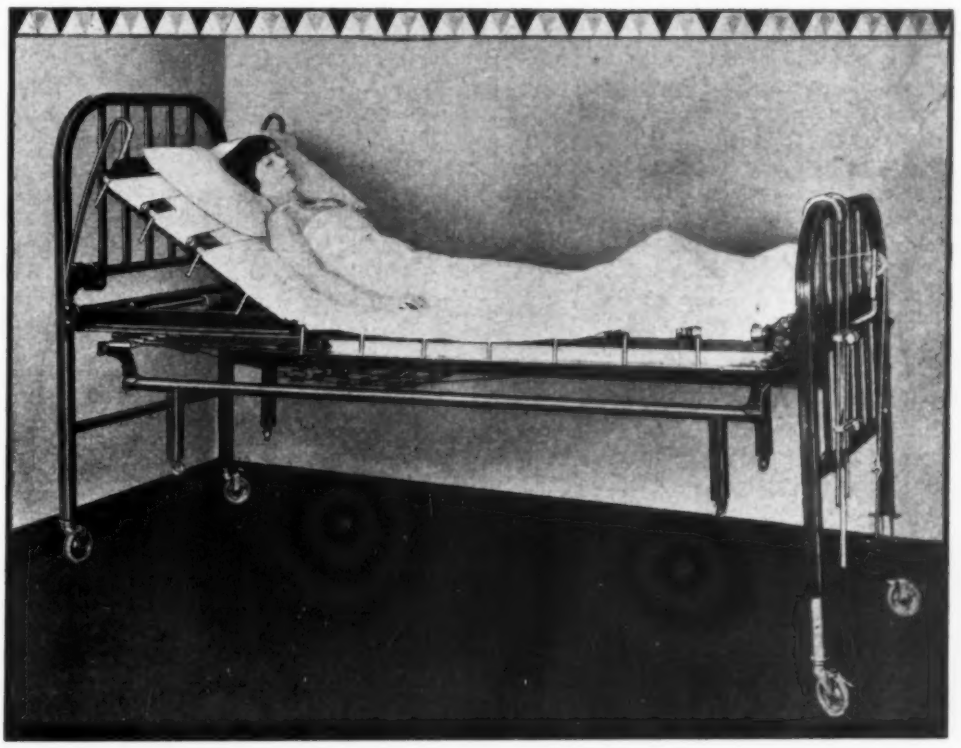
The standard for energy is hard to set. In the case of the patient for whom activity is no factor we serve standard portions so that the average bed patient receives 2,000 calories for the day. Patients who need to gain a large amount of weight are taken care of by extra feedings. Patients who are larger than the average or who are ambulant are given second servings to meet their individual needs. Out of a medical ward of eighteen patients, six on the average received second servings. This same ward in two weeks time, showed twelve patients gaining weight, two losing and four holding their own.

The question of activity with the well population of the hospital is more important. On the whole, we have two methods of checking the adequacy of energy foods: first, the proportion of money spent and the amount purchased of certain items, such as sugar, jams, jellies, bread and butter; second, the weights of the various groups.

In the case of sugar, from one to one and a half ounces a person daily is sufficient not only from the standpoint of calories but from the standpoint of flavor. If jams and jellies are used in larger amounts the amount of sugar consumed should decrease. If the consumption averages more than this, a number of things must be watched, the first of which is loss by theft or misuse. There is nothing so easy to carry away as sugar and it is a simple matter to collect enough for candy. Second, desserts and drinks that are too sweet represent not only a waste of sugar but usually a waste of the whole serving.

The amount spent for bread and cereals, the other important energy foods, is about 10 per cent of the total budget. These, however, are foods that are easily wasted and frequently used to excess. Duplication of bread stuffs at a meal and waste in cutting are points to watch.

It is well to have a daily weight of any patient for whom food is the therapeutic agent. The psychological effect of keeping the weight both of grown-ups and children more than balances the trouble. Ordinary scales may be placed upon a rolling platform and rolled from bed to bed. Twice a week for children or once a week for adults will supply the satisfactory information concerning the diet from the energy standpoint. Nurses, employees and interns who complain about not getting enough food may usually be silenced if their weights and general appearance are checked. We find it unusual for student nurses or interns to lose weight during their first few months. The usual experience is a gain of from ten to twenty pounds. This is not due entirely to the food since the change and the regularity of the life in general play a part.



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The four minerals that hold the center of the field at present are calcium, phosphorus, iron and iodine. An adequate quantity of milk ensures enough calcium to supply the body's needs. In this connection and to emphasize the point, it might be well to mention the work of Drain and Boyd on the control of caries in teeth. Diabetic children who received a minimum of 750 cc. of milk and liberal quantities of fruits and vegetables revealed an excellent dental condition, with caries arrested. Children under orthopedic care, with the same intake of milk and two fruits and two vegetables daily, showed the same arrest of caries and a hardening of the enamel. We are now extending this work to the arrest of caries in the adult and to the saving of the teeth during pregnancy. In this latter condition we are trying the effect of one and one half quarts of milk in addition to two fruits and two green vegetables daily.

Minerals and Vitamins

Phosphorus is ensured by protein and cereal.

The iron requirement is estimated at from 15 to 20 mg. a day. Even this small amount requires two large servings or 200 gm. of liver daily to furnish that. Meat, especially liver, eggs and green vegetables are good sources. We recognize the effects of a serious iron shortage, such as the nutritional anemia of infants fed too exclusively on milk, but we do not know the effects of a low iron intake over a long period of time. A diet adequate, however, in meat and eggs, in fruits and vegetables, would seem to fulfill the iron needs as we recognize them now. Efforts to introduce iron or the stimulating factor by adding liver to the institutional diet are not satisfactory. Good liver is expensive to purchase, it is too dfficult to prepare and serve and it is generally disliked.

Iodine particularly necessary in certain sections, is rather difficult to include in the institutional diet. The foods richest in iodine are sea foods and these are costly and are not well liked. The general use of iodized salt is a dangerous practice and should be only carried on under orders of the medical staff.

Vitamins seem to have caught the popular fancy. There has been no phase of nutrition so widely studied and with such startling results, results that can be understood by anyone. Let us compare two groups of animals. The animals in one group are undersized, their fur is thin and scraggly, their eyes are inflamed and they are unable to reproduce. The animals in the other group are well developed, they have smooth, thick coats and clear eyes and they bear healthy young. The only difference between the two groups is that lard was fed to the first group and butter fat to the second group. The first group gives a true picture of the effects of vitamin deficient diets. When we see children exhibiting some of the same characteristics, such as crooked bones, decaying teeth and lusterless hair, and watch them change under the influence of a varied diet, then we are convinced more than ever of the importance of a diet in which vitamins are plentiful. At any rate, so many persons have been impressed by vitamins that it is possible to sell any kind of a fraud if the term vitamin can be attached to it in some way. On the other hand, the attitude expressed by a physician who said that he had seen only two cases of a deficiency disease in fifteen years of practice, is the other extreme. There must be a middle ground.

We do not see much xerophthalmia, yet it was found in the Balkans during the war and was cured by cod liver oil and some common fats. We do not see much pellagra in the Middle West, yet it is common in the South where it is treated by an adequate diet. Scurvy is quite rare, but the cases we see give a history of a diet restriction or, in the case of children, too much milk with too few additions. Pediatricians tell us that there are fewer babies with rickets and that severe rickets, particularly, is becoming less each year. The doctrine of cod liver oil and sunshine has penetrated through a great many layers.

The importance of vitamins in infections, particularly of the upper respiratory tracts, is shown by animal experiments but no controlled experiment on humans has proved as yet their absolute curative or preventive value. Because conditions that follow low intakes rather than total deficiencies of the vitamins are little understood, it is these conditions we have to meet and guard against. We try to prevent upper respiratory infections by a liberal use of cod liver oil. Our medical men prescribe it quite routinely in all infections in both children and adults and for any of our nurses or employees subject to colds. Practically we feel that better appetites and quicker recoveries follow its use. We use butter liberally for the same reason. From the standpoint of the food budget there is no one vitamin rich food that must be purchased to the exclusion of all others or in addition to all others, with the possible exception of butter. There is no source of vitamin A as generally liked and consumed in quantities as is butter. Whole milk and oleomargarine are a possible substitution but skimmed milk and oleomargarine for cooking with whole milk and butter for table use form a much more satisfactory combination.

There are few persons who have not been impressed with efforts of advertisers to make the public realize the necessity of orange juice and other citrus fruits, rich in vitamins B and C and basic ash. For the sick hospital patient, orange juice is an excellent source of vitamins B and C and of basic ash and it is refreshing. But tomatoes, canned or fresh, give much the same picture. They are high in vitamins B and C, they have the same basic ash value and about half as much carbohydrate and the fruit and juice are refreshing and generally liked. Nauseated patients can frequently take tomato juice when orange juice cannot be tolerated. It can be taken hot when other hot fruit juice may not be so appetizing. A liberal use of tomatoes on the wards and in those groups where vegetables are not taken well will ensure vitamins B and C and basic ash at a minimum expenditure. On the list of vegetables eaten most readily and most completely, peas are first and tomatoes second.

Essentials of an Adequate Diet

An excellent source of vitamin C is cabbage. It is also basic and has the additional value of being an excellent laxative agent. A study made of patients and normal adults showed that it was more efficient than any other vegetable in producing a normal stool. When served raw or when cooked properly, it causes no digestive difficulty in the normal person. With any patient in whom gas is a factor, it should not be used, since its laxative action is due not only to its bulk but to the fact that it is a gas former.

The menus in which are to be found the essentials of an adequate diet will include: one quart of milk daily used as a beverage and in foods; one egg; one serving of meat; a second serving of meat; an egg or meat substitute; fruit twice daily; two green vegetables; potatoes; bread and butter to make up the required calories. In the budget, from 25 to 31 per cent is spent on the protein foods, 25 per cent on milk and milk products, 25 per cent on fruits and vegetables, 10 per cent for bread and cereals and the remainder for sugar, cooking fat, beverages and other miscellaneous items.

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NURSING AND THE HOSPITAL

Conducted by M. HELENA MCMILLAN, R.N.,
Director, School of Nursing, Presbyterian Hospital, Chicago

The Self-Supporting Nursing School and How It May Be Financed

By PHOEBE GORDON, A.B.
Instructor, School of Nursing, University of Minnesota

SCHOOLS of nursing have operated for years on the general assumption that student nurses give service to the hospitals, and that in return for this service the students receive maintenance and their education. It has long been the feeling of both administrators and educators interested in nursing education that this exchange should be closely scrutinized with the view to seeing that each party to the agreement receives full compensation, and that to maintain justice to both the student and the hospital some plan should be worked out whereby the cost of nursing education is definitely separated from the cost of nursing service.

The student, quite properly, wishes to give no more of her time and strength than is necessary to secure the education that she has set as her goal; or, to put it another way, she feels she has a right to the best possible education that her daily service can purchase for her. On the other hand, the hospital, with its ever present financial problems, cannot and should not set aside from the hospital funds a sum of money for nursing education any larger than it would have to set aside for some other adequate means of caring for its patients. In other words, the hospital's problem is to care for the sick, and if the funds necessary for this care can be used to provide education for an untrained group instead of compensation for trained workers, then the hospital has no objections, but this is as far, financially, as it can be asked to go.

Suggested Methods

There are various methods of attempting to separate the cost of nursing education from other costs. One way that has been suggested more than once is for the hospital to pay the student for her services at a certain hourly rate, and in return expect her to pay for her maintenance and tuition. Another adaptation of the same method is to have the sum for student services paid into the school of nursing budget to be used solely to pay for the maintenance and education of the nurse. The average self-supporting student in a college finds that she has all she can do to earn her room, board and tuition while attending school, so it is quite reasonable to expect that the services of the student nurse will no more than cover her maintenance and a satisfactory course of nursing education. For this reason the second suggestion seems likely to accomplish the same result as the first, with less bookkeeping and with less emphasis on the commercial viewpoint in the student's mind.

Steps to Be Considered

The first step in setting up such a budget for a school of nursing is to consider carefully what items should make up the income and expenses of the school. Some items are necessarily open to question and some would appear in the budget of one school but not in another, because of the variation in type of school organization. For the purposes of this study, the University of Minnesota School of Nursing has been the organization under consideration. In the following paragraphs there have been included what would seem to be the proper items to incorporate if such a system were to be used in the University of Minnesota School of Nursing.

Income: an hourly charge to the hospital for all students after their first six months at a flat rate to be determined by a careful consideration of the value of their services. A survey of student employment at the university indicates that the hourly rate for student help varies from twenty-five cents an hour to fifty cents, according to the need for skill and responsibility in the work done. It would, therefore, seem fair to assume that the freshman student nurse could earn the minimum of twenty-five cents an hour and that the senior could earn at least forty-five cents an hour. The average for this would be thirty-five cents an hour. This coincides with the suggestion made by Robert Neff, administrator, University of Iowa hospitals.[1]

This charge would be made only for time actually on duty. There would be no charge for the part-time work of the probation quarter on the theory that its irregularity makes it of no great value to the hospital and that, if no charge is made, the time may be used for educational rather than service needs.

[1] Neff, Robert, The Cost of Nursing Education to the Hospital, American Journal of Nursing, September, 1929.

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TABLE I—AN ESTIMATED BUDGET FOR THE SCHOOL OF NURSING

Income			
37,174 days averaging 7½ hours at 35 cents			$97,581.75
Expenses			
Maintenance			
Total days in residence including preliminary and probation students = 44,500 = 1,483 months at $45 a month			$64,735.00
Laundry—110 students at $36 a year (estimated)			3,960.00
Uniforms			824.00
Director's office			2,260.00
The director's office includes the salary of the director and two assistants, one stenographer, and a $500 office expense budget, making a total expense of $9,040. It serves a school of more than 450, made up of students in four associated hospitals. The students in the University Hospital represent only one-quarter of the total number, so that for this study one-quarter of the total expense was charged against the earnings of these students. If such a plan were in actual operation, the earnings of the other students, paid in by the other hospitals, would carry the remainder of the expense of the director's office.			
Practical nursing instructors (2)—salaries and maintenance			3,660.00
Nursing classroom equipment and rental (estimated)			500.00
Teaching load carried by medical school			
Estimated as follows for each quarter:			
Phys. Chem.	1 full-time instructor	$ 900	
	2 assistants	100	
Bacteriology	1 half-time instructor	450	
	1 assistant	50	
Anatomy	1 half-time instructor	450	
Lettering	1 third-time instructor	300	
Pers. Hygiene	1 lecture a week	100	
Pharmacology	1 third-time instructor	300	
		$2,720	
	Twice a year	2	
		$5,440	
This represents the teaching load for 400 students. As in the case of the director's office, we estimate the teaching load for the University Hospital as ¼ of the above			1,360.00
Contribution to hospital staff (estimated)			
Superintendent of nurses		$ 50.00	
7 head nurses at $25 a month (¼ of $100)		175.00	
Dietitian		30.00	
		$255.00	
¼ maintenance of above staff at $45 a month		101.00	
		$356.00 × 12	4,272.00
Medical care for students			4,712.40
1,224 days at $3.85 (per capita cost at University Hospital)			
Balance available			11,298.75
			$97,581.75

Students would not be paid for time spent on vacations.

A flat rate would be used instead of a graded amount from the freshman to the senior year simply for ease in recording. This is ascertained by averaging the varying rates for the three years.

Under the present organization of the University of Minnesota, the tuition fee of the preliminary quarter should probably be paid to the university support budget. In return, university support would be given the school of nursing without charge in such matters as use of laboratories, classrooms, student privileges and general administration expenses. This would probably represent a smaller expenditure per student in the school of nursing than in any other department of the university. All teaching load and departmental administration would be borne by the school itself. The result to the university (exclusive of the hospital) would be practically the same as making the school of nursing an endowed department.

Expenses: maintenance of each student for the entire time of her residence. The hospital, therefore, would stand no loss for students who are dropped during the first two quarters. Maintenance has been estimated at $45 a month, based on the same charge used in the university dormitory for academic students. Since the school of nursing would provide this sum for the maintenance of student nurses, it would be desirable to have an entirely separate budget for its use and, if possible, separate dining room service. If the hospital is able to operate this maintenance at less than $45 a month, it would profit accordingly.

Laundry is charged at the rate of $3 per month per student. This would not be sufficient in a public laundry, but it seems to be more than sufficient in the university laundry at present. Whether the hospital should or should not be relieved of the expense of laundering the uniforms is open to question.

Whether the school or hospital should furnish the uniforms is also open to question, but they have been included in this study as a more legitimate expense for the school than for the hospital, since the hospital does not furnish graduate uniforms.

Maintenance of the office of director of nursing and her staff is a vital consideration. Any instructors added to the staff for graduate instruction only could not be

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charged to this budget since the income is from undergraduate services, but all instruction or administration for the undergraduate group school should be paid for by the school budget.

Practical nursing instructors' salaries and maintenance must be considered. It is estimated that there should be one instructor for every fifty students. If she were paid by the school of nursing budget, she would have nothing whatsoever to do with hospital administration.

Concerning the teaching load of the preliminary quarter, the medical school should be reimbursed for all teaching given to nursing students.

The school should contribute to the hospital one-quarter of the salaries of and maintenance for the following staff members: the superintendent of nurses, the head nurse in pediatrics, the head nurse in obstetrics, the head nurse in medicine, the head nurse in surgery, the head nurse in the operating room, the head nurse in the dispensary, the head nurse in gynecology and the head nurse in contagion, if any. It should contribute also one-sixth of the salary of the dietitian. The basis for this plan is that at least two hours each day should be spent in organized teaching, either class work, demonstration or a definite ward teaching program. The remainder of the day is to be spent in supervision, which differs from organized teaching and is a reasonable hospital rather than school expense. Any organization employing low paid workers expects to pay for supervision of those workers to ensure good service.

Doctors should be paid for lectures to junior and senior students at the rate of $10 a lecture. This keeps the school from having to ask favors and encourages adequate preparation of lectures and a more faithful attendance of the lecturers.

Other considerations are: classroom equipment in the hospital or the nurses' home; a social director to assist not so much with social activities as with personality problems, which are particularly important in the nursing field; maintenance of a nursing reference library for immediate use on the wards; miscellaneous expenses such as school pins and clerical help; the hospital care of sick students to be charged at cost.

The second step of the study was to estimate the amount of funds available if this plan were in use at the University Hospital. Provided the items that have been listed are accepted as fair and adequate to both the student and the hospital, then the situation narrows itself down to this: Will the funds thus accumulated be sufficient to supply the desired education? If so, all well and good. If not, the education expenses must be cut down or the income increased. Since we have already tentatively said that the rate of pay was all that was fair to the student, this increase, if necessary, would have to come from the student herself, from endowment or from public funds. If, on the other hand, the funds more than supply the desired education, we can only assume that the student is entitled to shorter working hours or a cash return to her for her services in addition to the education and maintenance she has received. For this part of the study figures were assembled from the records of the University Hospital for the year 1928.

During 1928, the hospital showed a record of 37,174 days of student duty. This represented slightly more than 110 students. For convenience, the figures in Table I are based on an estimate of 110 students. The expenses included are only those that are now being borne by the hospital or university.

The available balance of $11,298.75 shown in Table I represents the amount of money that would have been earned by the students in 1928 working at the rate of thirty-five cents an hour over and above what was necessary for the expenditures made for them at present. Part of this fund would go to meet very definite needs already existing, and already listed in our assumption of legitimate expenses. Among these needs are:

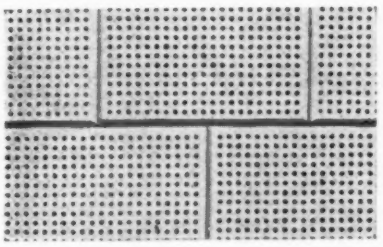
Payment for the 120 hours of doctors' lectures at $10	$1,200.00
Personnel director (part-time)	900.00
Contributions of nursing literature to the university library	100.00
Clerical help and publicity expenses (estimated)	300.00
Increased salaries of instructors and additional instruction (estimated)	2,400.00
	$4,900.00

This would seem to leave a balance of more than $6,000. However, other educational needs would constantly be appearing, and it would also be necessary to

TABLE II—COMPARISON OF THREE SYSTEMS OF FINANCING THE NURSING SERVICE AT THE UNIVERSITY HOSPITAL

	Present System	*Hourly Charge*	*Graduate Staff Only*
Approximate number of nurses needed	30 graduates 130 students	30 graduates 130 students	121 graduates
Expenses to hospital—			
Housing all nurses	$ 9,330	$ 9,330	$ 7,683
Board all nurses	26,247	26,247	21,344
Illness—hospital care of nurses	5,232*	520†	2,329
Uniforms	824	0	0
Laundry (estimate) $36 a year for each nurse	5,040*	1,080†	4,356
Miscellaneous charges	294	0	50
Graduate salaries	37,415	31,775	132,215
Undergraduate salaries	0	97,581	0
Totals	$84,382	$166,533	$167,977
Income to the University Hospital from the school of nursing—			
Maintenance—undergraduate		$64,735	
Maintenance—¼ teaching staff		1,212	
Classroom rental and equipment		500	
Total income		$66,447	
Grand totals—expense	$84,382	$100,086	$167,977

*Graduates and undergraduates.
†Graduates only.



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maintain a fairly large surplus to ensure the continuance of an adequate education. If, for instance, there was a sudden drop in the number of students in the school or number of hours on duty, the income would be greatly lessened and might not be met by an identical decrease in expenses. Moreover, such expenses as illness of students or cost of maintenance might rise without increase in income. In proportion to the size of the total budget, $6,000 is none too large a surplus fund to carry over for emergencies.

The important finding of this part of the study is the conclusion that it would seem possible to provide an excellent education, solely from the earnings of the student group, given a school of the type and size of the University of Minnesota School of Nursing. Quite obviously, a much smaller school would have a much smaller income, and some of its expenses, for instance the teaching expenses, would not diminish in proportion. In a plan of this kind, each school would have to budget its own probable income and expenses in order to know in advance what it would be able to accomplish.

Comparing Costs

The last step of the study was to compare the suggested plan with the present cost of the school of nursing to the University Hospital, and with the probable cost of a graduate nursing staff for the hospital. To do this necessitated a separate cost study of the present cost of the nursing service at the University Hospital. Like many hospitals, no attempt has been made as yet to separate nursing expenses from other hospital expenses. For instance, the food budget covers food costs to patients, nurses and employees, which made it difficult to determine the actual cost of board for the nursing staff alone. Similarly, it was difficult to separate out the cost of the nurses' laundry, since no record has been kept of even the amount of laundry belonging to nurses as differentiated from the patients' and employees' laundry. All of these figures could, of course, be accurately assembled if sufficient time were available to set up a cost accounting system, but for the present the best that could be done was to make rough estimates. However, one point should be especially noted: such items as maintenance and laundry appear in all three possible systems of financing the nursing service shown in Table II, so that if there has been an error in the estimate for these items, the same error appears in all three cases. The differences in cost in the three systems, therefore, would not be markedly affected.

A detailed explanation of the present organization of the school and the methods used in assembling the figures would no doubt make the figures of more value and interest, but it would make this study unnecessarily long and involved, since, after all, it is the suggested system of hourly charge that is under consideration. It is probably enough to say that at present the hospital is paying for the maintenance of all of its nurses, including preliminary students, and is furnishing uniforms, medical care, and all of such teaching as is carried on in the hospitals. The expense of the teaching of science subjects and the expense of the director's salary and her staff are at present borne by the university itself and not at all by the hospital. It should be kept in mind, therefore, that the cost of the present system as shown in Table II represents the cost to the hospital and not the total cost of the nurses' education.

In making up the estimate for the hospital's expense with a graduate staff only in mind, we found ourselves confronted with the serious problem of estimating the number of graduates needed to replace the student nurses. Generalizations have frequently been made that the value of a student nurse is 75 per cent or 80 per cent of that of a graduate nurse, which means that if a graduate can care for ten patients, the student could only care for seven or eight of those patients in the same length of time. On the other hand, there are head nurses who will tell you that her senior nurse can accomplish quite as much if not more than her general duty nurse. This problem again may only be settled after detailed study and actual experiment, but for the present we have made use of the estimates of head nurses and supervisors as to the approximate number necessary to staff the floor. We have then arbitrarily reduced the number to allow for the possibility of adjusting the graduate nurse staff to the fluctuating number of patients, a situation not possible with student nurses.

With this rather meager explanation, Table II is submitted. This table shows first that the hourly charge for service would result in the hospital spending $15,704 more a year than was spent under the existing system. This additional amount is made up of the following items:

$3,620—Returned to the university support budget for items at present carried by the university. This, therefore, is not a new expenditure, but one that would be met by funds acquired from the hospital rather than from the state educational fund.

$6,104—Reserve fund. The use for this fund to be determined by future needs.

$5,980—Expenditure for improved educational facilities as follows:

$1,200—Medical lecturers.
300—Publicity and clinical help.
900—Personnel worker.
100—Library fund.
3,480—Increased salaries.

This increased cost to the hospital would, of course, result in an increase in the per capita cost for patients, but if we admit that thirty-five cents an hour is not too large a fee for what is largely skilled technical work demanding intelligence and responsibility, then the conclusion must naturally follow that this increase is entirely justified.

The comparison between the hourly charge system and the cost of providing a graduate staff for nursing care shows a saving of approximately $68,000 made possible by the use of student service. Again, it must be emphasized that these figures are to some extent estimates only, and even if they are accurate, they have been assembled from one hospital only. Nevertheless, the study definitely points towards the conclusion that for a hospital of the size and type of the University of Minnesota Hospital, the school of nursing could be put on a distinctly self-supporting basis and still cost the hospital much less than would be required to provide a graduate nursing service.

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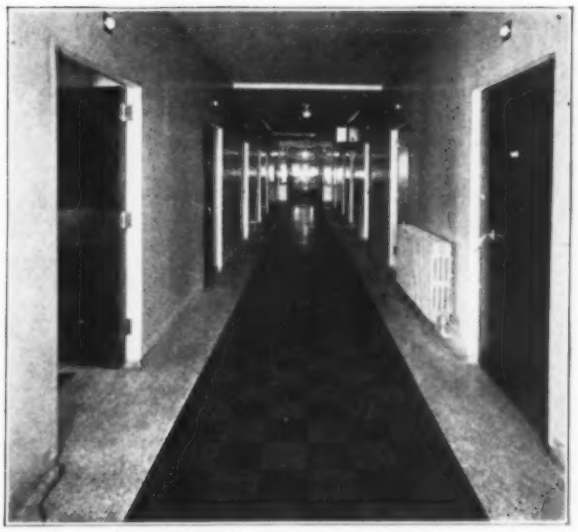

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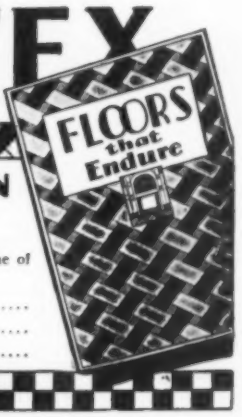

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Director for Medical Services, Julius Rosenwald Fund, Chicago

Cost Studies and Their Value to the Out-Patient Unit

By G. P. BUGBEE
Office Manager, University of Michigan Hospital, Ann Arbor

FINANCIAL records and accounts have become increasingly important to modern business proportionately as they have been changed from a history of past results to a correlation and interpretation of these results as an aid to management.

It is no longer sufficient for the accountant to advise periodically the relationship between expenses and revenue. He must be in a position to indicate where expenses are too high, where revenue is too low, what department is inefficient and why. It is the exact record he furnishes that the management must use as a basis of judgment in weighing decisions, no matter how many factors other than the financial may be involved.

Hospital administrators have been slower to realize the importance of management through accounts than has the business world. It is becoming increasingly apparent, however, that the same methods employed in the successful business firm may be adapted to hospital needs. The hospital accountant is being called on to supply the detailed cost studies and analytical statements that will allow those who control the policy of the hospital to make decisions on a basis of exact information.

At the University of Michigan Hospital a determined effort has been made to make office records of the highest possible value as a guide to the administration of the institution. It has been felt that the efficiency of these records may be judged by carefully weighing the value of results against the cost of producing those results. This factor has controlled the expansion of the accounting department.

"Problems of Hospital Management, With Special Reference to the University of Michigan Hospital,"[1] a book written by Albert E. Sawyer, formerly office manager of this institution, outlined very ably the fundamental records developed here that were used as a basis for the out-patient cost studies in this article. A detailed study of all the basic records mentioned in that book would be impossible. This article, therefore, will review only certain points briefly, since those who are interested will find valuable a careful study of the book itself.

In the initiation of a cost system, the first step is the definition of the unit divisions for which separate costs are to be prepared. The rules governing this division are relatively simple, requiring primarily a complete understanding of the institution. For this purpose a chart showing the flow of executive authority often forms a satisfactory framework for a division by function. Each department head represents a diverse function. Subdivision under the department head follows subfunctions and geographical units for which a separate costing is required. The operating room and ward unit represent subfunctions of the nursing department, while individual wards or diet kitchens represent units subdivided geographically.

An understanding of the organization of an institution is the first step in cost analysis. It follows as a corollary that the problem presented in the specific case is measured by the complexity of the organization.

At the University of Michigan Hospital the in-patient wards and the out-patient clinics are in the same building and are administered by the same staff, which is organized to treat ward patients and out-patients with the same personnel. The out-patient clinics are divided along the same lines of specialization as the medical staff. The general departments of the hospital, such as the business office, the social service and the record room, serve the clinics and the wards as needed. The clinics treat not only out-patients, but also ambulatory in-patients. The complexity of such an organization may readily be seen. The problem is large compared with that of the out-patient clinic, which is a separate organization with a separate physical plant.

The institution organized strictly as an out-patient clinic presents a more simple situation to the cost accountant. Cost may be computed with far greater accuracy than in the more complex situation. For example, in the institution that serves both in-patients and out-patients, it is necessary to devise some method of dividing the cost of a nonrevenue bearing department, such as the record room, between the wards and the out-patient department before the expense can be spread to the individual out-patient unit. Records are prepared for both in-patients and out-patients. The expenses of the record room, therefore, cannot be charged in total to either the wards or the clinics; a certain amount must be spread to each group. Division on some ratio must be established

[1] Michigan Business Studies, Vol. 2, No. 2, Bureau of Business Research, Ann Arbor, Mich.

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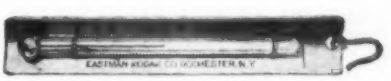

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before the total chargeable to the out-patient units can be distributed to the separate clinics. The out-patient institution organized to function without immediate connection with a hospital eliminates this most difficult division of overhead required before expenses can be spread to the individual out-patient clinics.

While the organization of the University of Michigan Hospital is not the most advantageous from the standpoint of easily figuring accurate unit costs, various approximate methods of apportioning overhead have been developed until figures have been arrived at that approximate the cost of each service.

The separate departments of the institution have been divided into three general classifications as follows: overhead units, ward units and out-patient units.

Overhead or general units include the director's office, the business office, the physical plant (maintenance of building and equipment exclusive of housekeeping) the record room and others. Every department in this group renders a service to both the in and out-patient departments. The overhead units are further defined by the lack of any revenue that may be directly attributed to them. Thus the business office serves every department of the institution, yet no total of revenue for services from the business office can be computed. The out-patient visit charge should be large enough to cover its proportion of business office expenses, yet no specific revenue is collected from the patient for services from the business office such as is collected for services in the x-ray department.

The ward units or in-patient units are limited to those giving bed service. The division into units follows closely the organization of the nursing department, each unit having a head nurse in charge. The expenses allocated to each unit are those covered by the room charge. These expenses include nursing, food, laundry, routine medications and housekeeping.

The out-patient departments, in addition to including the individual out-patient clinics, include special departments that should be self-supporting. In this group are included x-ray, physiotherapy, bacteriology, blood chemistry, the appliance shop and the operating room.

The three divisions outlined in the preceding paragraphs form a convenient starting point for spreading the costs. The actual spread is fraught with many obstacles which, however, may within limits be overcome.

In this article the cost study of out-patient units is of prime interest. One out-patient unit taken as an example will illustrate how expenses can furnish a cost analysis.

To each out-patient unit in the hospital every item of labor and commodity cost which can be attributed directly to the unit is segregated in direct expenses. Table I illustrates a classification of these expenses by salaries and commodities for the medical out-patient clinic. These direct expenses include salaries of nurses, clerical help and all labor in the clinic. Total commodities include medical and surgical supplies, depreciation and all expenses, with the exception of labor, which may be directly charged to that clinic. These expenses are not all inclusive. A nurse who works in this department part of the day and in another department the rest of the day, so reports her time on a time card, and each department is charged accordingly. The salary of the director of nursing cannot be charged on the same basis and is not included in direct expenses. In the same way, depreciation on equipment in the clinic is charged directly, while the power and light cannot be so charged to the unit, and must, with the director's salary, be included in overhead accounts to be spread on some approximate basis.

Direct expenses are defined as salaries and commodities that are consumed in an individual unit. Two factors limit the items that may be included in direct expenses. One class of expenses, such as the salary of an administrative officer, cannot accurately be charged directly to a department, since there is no way

TABLE I—INTERNAL MEDICINE OUT-PATIENT CLINIC
DEPARTMENT NO. 531
DIRECT EXPENSES

JULY THROUGH DECEMBER, 1929

Line No.	*Account No.*	*Description*	*July*	*Aug.*	*Sept.*	*Oct.*	*Nov.*	*Dec.*
1	1123	Heads of subdepartments and supervisors..	$325.00	$325.00	$325.00	$325.00	$325.00	$325.00
2	1130	Secretaries, stenographers, bookkeepers, etc.	272.13	193.33	269.42	280.83	272.49	272.49
3	1166	Orderlies	100.17	32.39	28.86	27.11	25.49	24.61
4	1167	Wardhelpers	79.90	84.36	65.83	73.91	70.00	68.32
5								
6		Total salaries	$777.20	$635.08	$689.11	$706.85	$692.98	$690.42
7								
8	1210	Postage, telephone and telegrams	.....	10.86	.....	21.60	42.90	21.60
9	1220	Stationery and office supplies	3.45	9.64	34.17	37.08	27.30	15.33
10	1261	Repairs to equipment	.....	.....	2.97	.68	6.36	15.09
11	1262	Repairs to building	.....	5.48	.....	.....	.....	17.91
12	1280	Materials and general supplies	5.54	4.90	4.71	7.26	4.55	5.43
13	1286B	Linen and clothing supplies	.....	144.00	.....	.....	.....	.....
14	1288	Medical and surgical supplies	64.65	57.51	22.86	15.83	6.92	22.23
15	1288A	Pharmaceutical supplies	.....	.....	2.77	.98	4.15	1.61
16	1289	Hospitalization of employees	205.05	10.10	.85	14.40	5.50	21.70
17	1295	Depreciation of equipment	21.60	21.60	20.60	20.60	21.11	21.11
18								
19								
20		Total commodities	$300.29	$264.09	$88.93	$118.43	$118.79	$142.01
21								
22		Departmental total	$1,070.49	$899.17	$778.04	$825 28	$811.77	$832.43
23								
24		Visits	2001	2444	1959	1945	1643	1083
25								
26		Index	.538	.368	.398	.424	.494	.768

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of measuring the service rendered the individual unit. For this reason such expenses must be accumulated in an account to be spread on an arbitrary ratio. The second class of expenses is excluded from direct expenses by a practical consideration. Direct allocation is possible but the expense of accounting by individual departments is greater than the value of the result.

The direct expenses of a unit do not give a complete picture of the success of the operation of the unit. However, when they are compared, period with period, they give a favorable indication of the efficiency of the supervisor of the unit. This supervisor has no control of many overhead expenses, but the amount of an item, such as medical and surgical supplies, is a factor he does control. Line 20 of Table I gives a comparison of direct costs for the internal medicine out-patient department for six months. Variation will be noted in the total of direct costs. This variation may be justified by a change in demand for service. Table I shows in Line 26 a correlation of service units—visits in the case of an out-patient department—with the total of direct costs. This figure, representing direct costs per visit, furnishes a comparison of direct expenses with demand for service. Compared month to month it is an index of the economy with which the department is being administered. Not only is this comparison of interest, but for similar types of organization units such as the surgical out-patient department, it is an index of the cost relationship for units of service in these departments. Table II gives such a comparison for twelve months for all clinics. This chart is abbreviated. It calls to the attention of the management trends rather than figures indicating the success of operation for the individual clinic. The comparison is principally valuable in that it calls attention to specific units that require further investigation.

The simple cost study of direct expenses yields much of interest and value, but from the standpoint of comparison with revenue to determine whether the department is self-supporting, the overhead factor must be given consideration.

The direct expenses of the unit are the groundwork upon which the balance of all other expenses are built. As has been stated, the administrative cost of the department of nursing cannot be charged directly to the clinic. A logical method for spreading this cost might be the expense of the salaries of nurses in the clinic.

The housekeeping expenses furnish a problem similar to that of the nursing department. The cost for cleaning a unit may be found through time cards and requisitions.

The total of all direct expenses is used as the basis for the spread of general overhead of the hospital. That part of the expenses of administration is charged to each out-patient clinic which the direct expenses of the clinic bear to the total direct expenses. The expenses of all the general overhead units are spread to the individual revenue bearing units on some basis that represents as close a division as is possible.

Once having allocated a definite amount of overhead to a department, this total plus the direct costs yields a figure which may be compared with revenue to determine the profit or loss for the period. This total of expense is also the total which, divided by the service units (visits in the case of an out-patient department), gives a unit cost price of a visit, the only basis on which the service may be given a fair sale price to the patient. Table III shows such a report for the internal medicine out-patient department for twelve months.

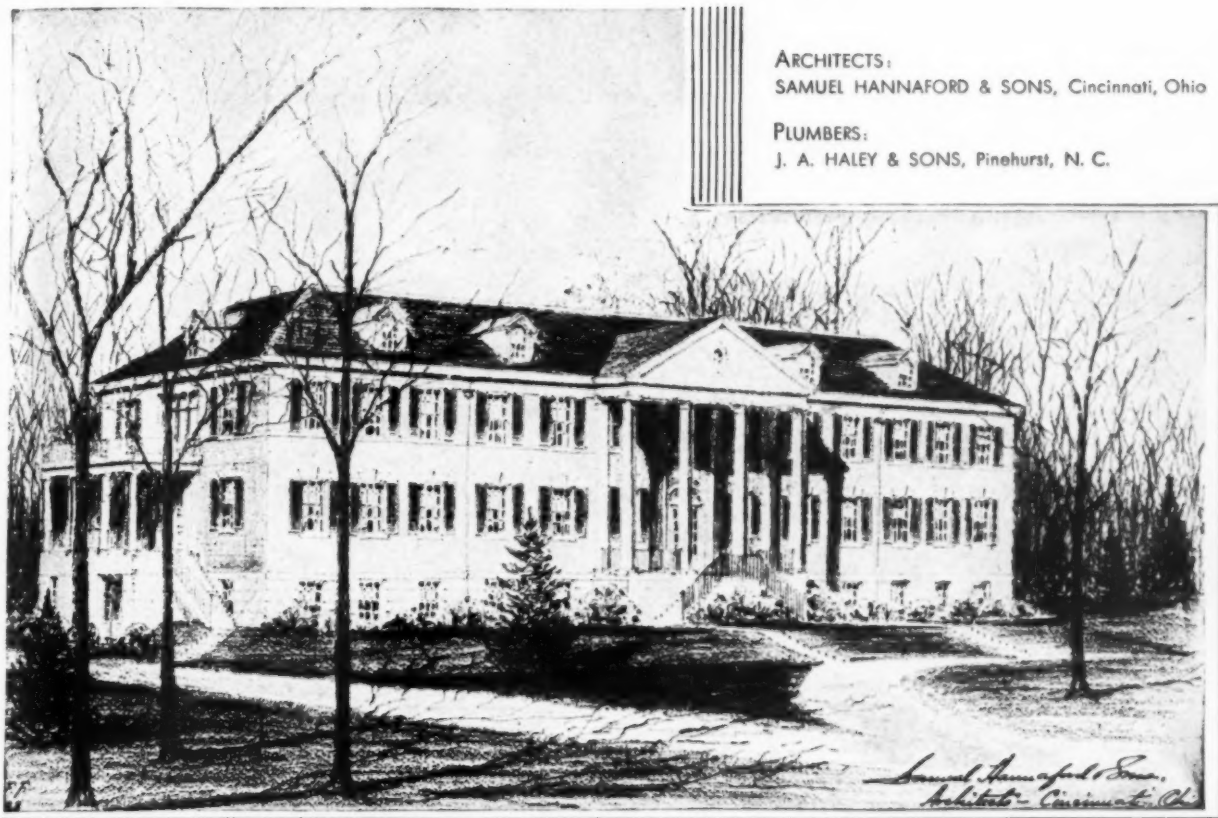
The brief outline that has been presented by this article brings out three functions served by the out-patient cost study of value to those who are directing an out-patient department. Direct costs weighed against service units give an index which, compared month to month or department to department, indicates the success with which the individual department is being administered. Direct and overhead costs divided by service units give a figure to be used in setting prices, while this total of direct and indirect costs compared with revenue indicates the financial results of the department for the period.

TABLE II—OUT-PATIENT STATISTICAL REPORT INDEXES
JANUARY THROUGH DECEMBER, 1929
COST PER VISIT

Clinics	*Jan.*	*Feb.*	*Mar.*	*Apr.*	*May*	*June*	*July*	*Aug.*	*Sept.*	*Oct.*	*Nov.*	*Dec.*
Bone and joint	1.055	.934	.623	.711	.770	.681	.594	.598	.637	.581	.635	.958
Dermatology	.600	.644	.606	.450	.923	.469	.779	.572	.720	.755	.702	.652
G. U. surgery	.716	.670	.598	.607	.617	.574	.821	.613	.585	.918	.894	1.031
Medicine	.883	.529	.462	.581	.543	.526	.538	.368	.398	.424	.494	.768
Neurology	.853	.687	.463	.554	.506	.593	.614	.492	.614	.562	.633	.852
Ophthalmology	.876	.611	.644	.741	.698	.846	.622	.627	.875	1.011	.742	.810
Otology	.451	.444	.328	.300	.337	.413	.406	.246	.215	.311	.491	.588
Gynecology	1.131	.766	.491	.669	.555	.592	.654	.775	.733	.912	.593	1.160
Oral surgery	.563	.871	.612	.619	.453	.376	.637	.337	.423	.395	.491	.384
Pediatrics	1.205	.853	.479	.499	.441	.379	.656	.468	.868	.832	.939	.955
Surgery	.752	.661	.549	.506	.496	.615	.574	.551	.411	.613	.643	.742
Totals	.827	.676	.524	.560	.569	.552	.608	.485	.540	.620	.641	.811

TABLE III—INTERNAL MEDICINE OUT-PATIENT CLINIC, DEPARTMENT NO. 531
DECEMBER, 1929

Expenses		
Salaries	$690.42	
Commodities	142.01	
Housekeeping	161.34	
Dietetics (employees' meals)	51.72	
Nursing overhead	76.93	
General overhead	372.01	
Total		$1,494.43
Revenue		
Registration fees	$305.38	
Subsequent visits	210.50	
Refers	195.00	
Sensitization tests	310.00	
Miscellaneous tests and treatments	340.20	
Total		$1,361.08
Loss		$ 133.35



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Conducted by C. W. MUNGER, M.D., Director, Grasslands Hospital, Valhalla, N. Y.

Hospital Seating Facilities Show Great Diversity

BOTH uniformity and diversity in the types of seating facilities are shown by a recent study of more than 700 hospitals, conducted by THE MODERN HOSPITAL. This survey shows that in nurses' classrooms, tablet arm student chairs are most widely used; in operating suites, the most popular types of seats are observation stands and benches; in out-patient department waiting rooms, benches, straight chairs, settees and davenports, metal chairs with leather or upholstered seats and folding chairs are popular in the order named; in the dining rooms of cafeterias, straight chairs, bent-wood chairs, oak dining room chairs, and Windsor chairs are used most widely.

Most of the hospitals participating in this survey were general hospitals, but all types of the special hospitals were represented as follows: federal; children's; contagious; tuberculosis; nervous and mental; maternity; chronic and incurable; eye, ear, nose and throat; skin and cancer; convalescent. The total bed capacity of the 710 hospitals is 179,016, which gives an average bed capacity per hospital of 252. The large number of average beds is caused by the fact that several large institutions for patients with nervous and mental diseases participated in the study.

The Questionnaire

The questionnaire which was sent is reproduced below:

"We hope to make a study of various types of chairs and seating facilities in the hospitals of the country to the end that some standards may be established. Will you be good enough to give me the answers to the following questions:

"How many seats and what type are used in your nurses' classrooms?

"Are there seats or benches in the visitors' gallery of the operating suite?

"If you have an out-patient department, what type of seats are used in the waiting room?

"What type of chair is used in the dining room or cafeteria?

"How many nurses do you have enrolled in your school of nursing?

"Do you have either an auditorium or a gymnasium in your nurses' home?"

Perhaps the greatest standardization in seating facilities has already been reached in the nurses' classrooms, but even in this department there is considerable variation among a small percentage of institutions. The total number using tablet arm student chairs which permit pupil nurses to write or take notes is 458, or 90 per cent, of the total number reporting on classroom facilities, which is 506. The total number of tablet arm chairs used in these 458 hospitals is 21,524. In 18 hospitals, or 4 per cent, 700 straight chairs are in use for nurses' classrooms. In 10 institutions, or 2 per cent, 661 folding chairs are in use. In 8 hospitals, or 1½ per cent, 456 school desks with seats attached are in use. In 4 hospitals, or 1 per cent, 95 laboratory stools are in use. Eight institutions, or 1½ per cent of the total, have been classified together in one miscellaneous group. The exact composition of this group is as follows: fixed benches, 2 hospitals with a total of 110 benches; 1 hospital using 30 reed wicker chairs; 4 institutions using a total of 675 opera or auditorium chairs; 1 hospital using 50 stools attached to desks; and 1 institution using 6 cane seats.

Various Combinations

Many of the schools of nursing report the use of various combinations of seating facilities. One reports a combination of desks with seats, ordinary opera seats, laboratory stools and straight chairs. Seven hospitals report a combination of tablet arm chairs with straight chairs. Five hospitals report tablet arm chairs used with folding chairs. Two institutions report tablet arm chairs used with auditorium chairs. Among the other interesting combinations are the following: tablet arm chairs with straight chairs and fixed benches; seats on a fixed pedestal with a drop arm, used with regular tablet arm seats; tablet arm seats, laboratory stools attached to desks and high laboratory stools; tablet arm chairs with plain kitchen chairs; tablet arm chairs, stools and chairs with ordinary arms; arm desks and benches with arms; tablet arm chairs and straight chairs with cane seats; arm chairs and stools.

Other interesting features of the seats used in nurses' classrooms are disclosed. Many of the tablet arm chairs are manufactured with a shelf underneath on which the student may place her books or other possessions. Another fairly popular type of tablet arm chair has a fixed pedestal and adjustable arm which can be lowered when not in use. A few hospitals report chairs that have tablet arms placed on the left side of the chair for the benefit of left-handed pupil nurses. Several report satisfaction

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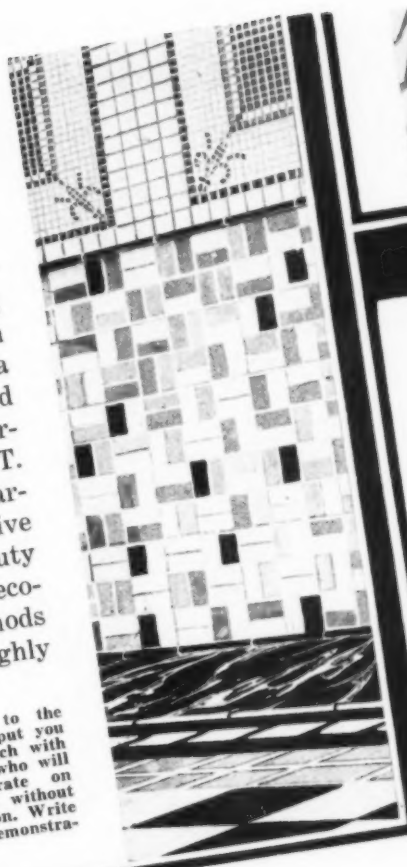

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with the use of tablet arm chairs which have a metal frame and a wooden seat and arm. Of the folding chairs, the type with leather seats and metal frames seems most popular. Windsor and mission are the styles of chairs named most often.

Not all of the schools of nursing reported the number of pupils, but of the 593 schools that reported, a total of 40,438 pupil nurses were in training. This gives an average of 68 pupil nurses for each school.

One hundred fifty-six schools have auditoriums and 88 have gymnasiums. Auditoriums and gymnasiums are combined in 19 schools, and 23 institutions have both auditoriums and gymnasiums.

Folding Seats Favored for Auditoriums

Seats used in the auditoriums and gymnasiums show an interesting variety, but folding seats of one kind or another are most widely used. The various types of folding chairs reported are as follows: wood, 4; leather seated, 1; metal frames and leather seats, 1; metal, 3; wood backs, 1; unspecified, 4. Among the other varieties of seating facilities in auditoriums and gymnasiums are the following: upholstered wicker chairs (in an auditorium); folding, fixed auditorium chairs, two chairs fastened together; light oak dining room chairs (in a gymnasium); portable chairs made up in groups of three; folding chairs in groups of two and three; camp chairs; small chairs. The folding or portable chairs seem to be best adapted for these rooms, because these seats can be stored when not in use and the space can be used for sports and games.

Two hundred eighty-five hospitals gave information concerning the seats used in operating suites. Of these, 104, or 36 per cent, use observation stands. Benches are used in 92, or 33 per cent; and seats are used in 47, or 16 per cent. In 5 hospitals both seats and benches are used. Ordinary chairs are used in 13, or 5 per cent, of the institutions. Miscellaneous methods of seating are used in 29, or 10 per cent, of the operating suites, as follows: folding steel chairs, 3; metal chairs, 4; opera chairs, 1; steps, 2; portable amphitheater, 3; wooden stools, 1; folding seats, 1; settees, 1; reed furniture, 2; operating stools, 8; upholstered chairs, 1; single seats of tile, 1; iron racks, 1.

Several interesting variations among the general types of seats in operating suites are worth noting. Some hospitals report neither seats nor benches, but "steps." Others report benches placed outside the surgery, benches with solid backs, built-in benches attached to the wall, benches mounted on a movable platform, semicircular benches, benches elevated on pipe rack stands, benches separated by a glass partition from the surgery, special steel tiered benches and pipe railing benches.

Observation Stands

Among the types of observation stands, the following are reported: metal observation stands in the major operating room for members of the profession, a movable platform with metal seats, tubular metal stand with seats of the same material, raised platform with chairs, stands and tiers of single seats, elevated platform with brass railing and tile observation stands.

Variation in seats is reported as follows: built-in metal seats; individual seats; white enamel chairs; screened portable seats; fixed seats of the stool type; single pedestal seats, bolted to the floor; cafeteria stools with railings; single tile seats; and seats hinged to the masonry.

Perhaps the greatest variety in types of seating facilities is reported for the waiting rooms and reception rooms of out-patient departments. Out of a total of 463 hospitals which returned data for outpatient department waiting rooms, 216, or 46 per cent, use benches of one

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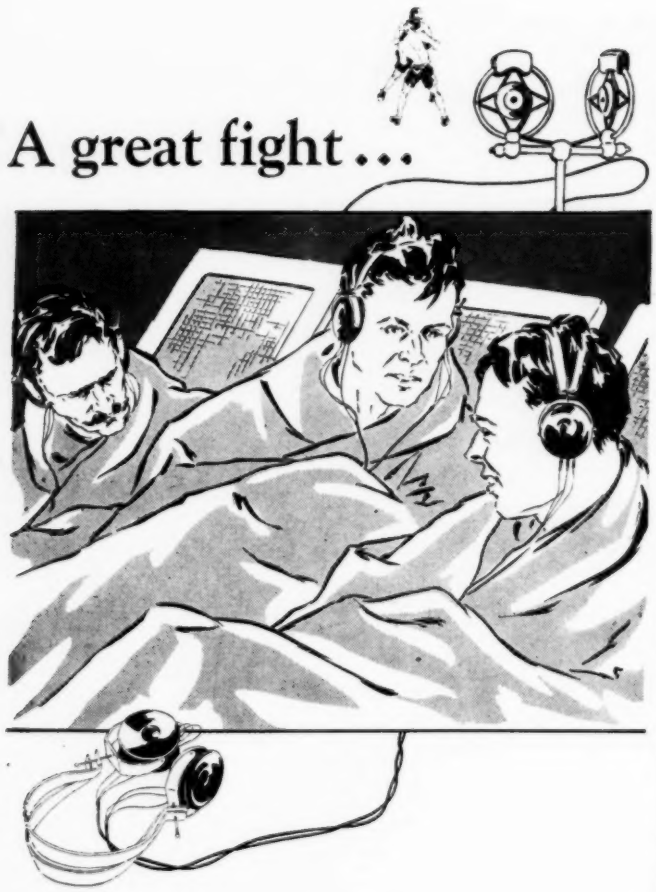

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kind or another. Straight chairs are the next most popular, and are used in 103, or 22 per cent, of the waiting rooms. Settees and davenports are also used rather widely, in 28, or 6 per cent, of the waiting rooms. Metal chairs and chairs with leather or upholstered seats are used to the same extent, in 23, or 5 per cent, of the waiting rooms, for each type of seats. Folding chairs, either metal or wood, are used in 19, or 4 per cent, of the waiting rooms. One interesting aspect of the seats used in out-patient waiting rooms is gleaned from the report that 12 institutions, or 3 per cent of the total, use rocking chairs. The remaining types of chairs are used in 39 different institutions, or 9 per cent of the total. They include the following: wicker chairs, 9; porch seats, 1; folding auditorium seats, 1; opera chairs, 5; chairs with cane bottoms, 6; tablet arm chairs, 2; stools, 2; Windsor chairs, 4; arm chairs, 8; and iron chairs, 1.

Furniture in Out-Patient Departments

Out-patient department waiting rooms, like the classrooms of schools of nursing, are often equipped with interesting combinations of seating facilities. Many of these combinations use benches, as follows: built-in benches, special wooden chair for children, and metal chair for adults; wall benches, leather covered, and Windsor chairs; wooden benches, wooden chairs, and chairs with leather seats; benches, stools and tablet arm chairs; benches, rockers and straight chairs; benches for colored patients, chairs for white patients; benches, reed chairs and oak chairs.

Other combinations reported are made up as follows: wicker chairs and a davenette; wood settees and steel folding chairs; chairs and benches, kinds not specified, but reported by 20 different institutions; chairs and a settee, reported by 3 institutions; rockers and a davenport; straight chairs, rockers and settees; dining room chairs, in groups of three; cane seated and leather seated rockers, metal chairs and straight chairs; cane rocking chairs and cane settee; enameled iron seats, wood chairs and easy chairs.

Metal chairs used in out-patient departments are of both the folding and nonfolding varieties. Some of the folding chairs have a metal frame and wooden seat. Metal benches are also in use, as well as wood benches. White enamel steel chairs, in sections of four each, are reported by one institution. Homemade benches with and without backs, are utilized in several hospitals. Other thrifty institutions are using old chapel or church pews, and some are using park benches, with slats. Some use the type of park bench which has seats separated with arm rests. Joined folding chairs are in use, as are double armed office chairs. Overstuffed divans and chairs are also reported.

Chairs Used in Dining Rooms

Variety almost as great as that apparent in the other departments is revealed by an analysis of the returns for dining rooms and cafeterias. Straight chairs are reported by 371, or 50 per cent, of the total number, 742, reporting on seating facilities of dining rooms. Of course, several other tyes of straight chairs are in use in additional hospitals. This classification includes only those straight chairs that were thus designated, without any further classification. For example, straight chairs also classified as oak or cane seated chairs, have been placed in those classes, rather than in the class of straight chairs.

Bent-wood chairs are the next most popular, and are reported by 143, or 20 per cent, of the dining rooms. Oak dining room chairs are the next most popular, and are in use in 49, or 7 per cent, of the dining rooms. It is quite likely that some of the chairs classified as straight

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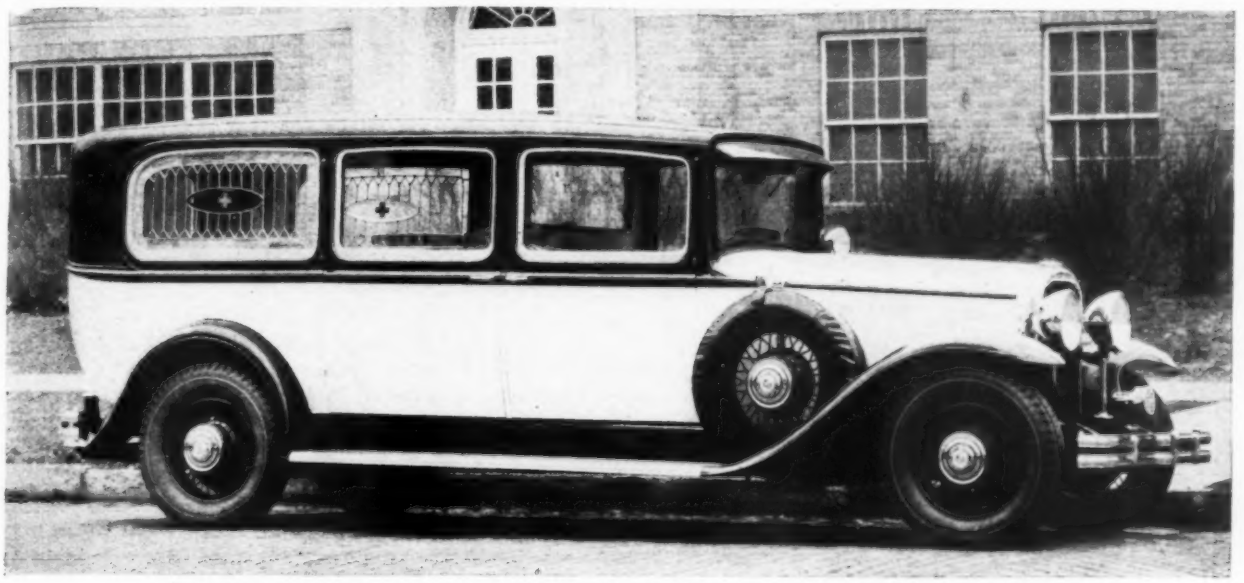

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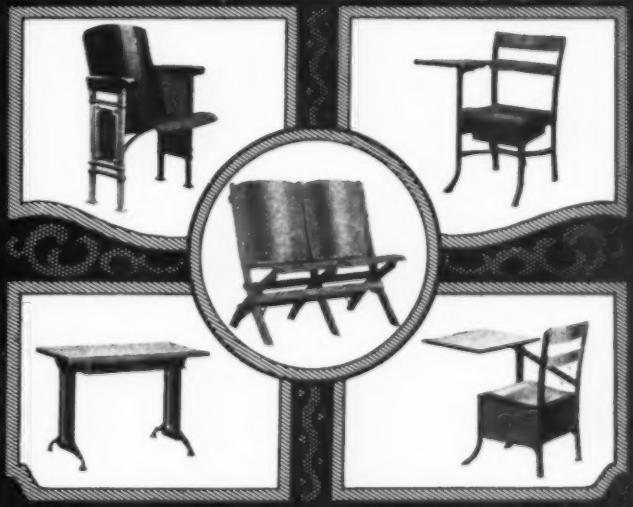

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chairs are also oak. Windsor chairs are reported in use in 35, or 5 per cent, of the dining rooms. Chairs with cane seats are utilized in 31, or 4 per cent, of the total. Chairs with leather or upholstered seats are used in an equal number of institutions. Metal chairs are reported in use in 22, or 3 per cent, of the total number of dining rooms. Tablet arm or cafeteria chairs are utilized in 12, or 2 per cent of the institutions, mostly in those that provide self-service for hospital personnel. The remaining types of dining room seats comprise a miscellaneous total of 38, or 6 per cent, divided as follows: kitchen chairs, 7; swing seats attached to tables, 4; mission style, 10; Venetian, 1; Colonial, 2; reed, 2; utility chair, 1; benches, 1; portable chairs, 1; walnut finish, 1; arm chairs, 1; type not specified, 7.

A Combination of Types

Combinations of types of seating facilities are also in use in dining rooms, often in a single hospital which maintains several dining rooms for medical staff, nurses, hospital personnel and patients or guests. A federal hospital of more than 1,000 beds reports the following combination: leather seats, nurses' dining room; semi-Windsor dining chairs, patients' messes. Other combinations reported are as follows: wooden stools, main dining room; mission type chairs, staff and nurses; wooden stools, main dining room; mission type chairs, staff and nurses; straight back chairs, cafeteria; bent-wood chairs with cane bottoms, dining room; upholstered chairs with tapestry, nurses' dining room; bent willow chairs, patients' dining room; chairs upholstered with leather, private pavilion dining room; rush seats, nurses' dining room; plain oak chairs, pupil nurses' dining room; oak chairs with leather cushions, dining room for faculty of school of nursing; employees' cafeteria, Austrian bent-wood; dining rooms for nurses and medical staff, Windsor dining room chairs; solid oak chairs, dining room; bent-wood chairs with veneer seats, cafeteria; employees' dining room, kitchen chairs; nurses' and physicians' dining room, saddle seat dining room chairs; cafeteria, plain wooden chairs; dining room, chairs with leather seats.

Bent-wood chairs of one type or another are most popular for dining room use. Some of these have laminated wooden seats; others have veneered seats; and still others have cane seats. Oak diners are in use with removable leather spring seats and also with oak formed seats. Several of the oak chairs, as well as straight and other wooden chairs, have saddle seats. Several chairs are of birch. One or two institutions are using chairs with wire frames and wooden seats such as are found in drug stores and ice cream parlors. Both wooden and metal chairs are in use with and without leather seats. Some metal chairs with "L" reinforcements at the back are in use.

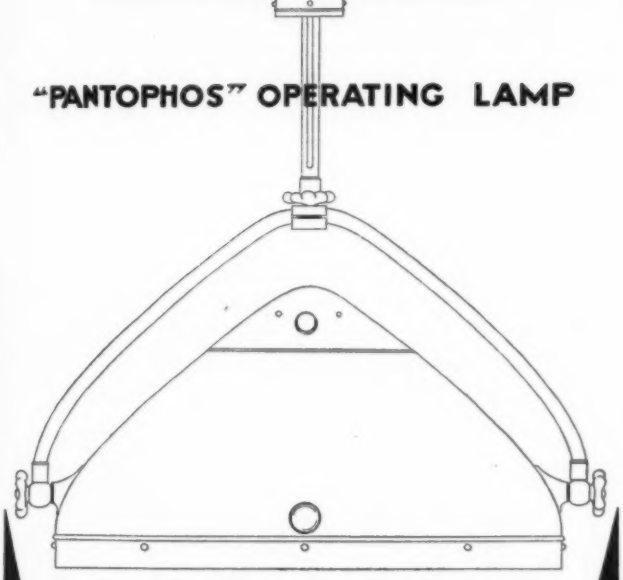
Water Bottles in Pastel Shades Are Now Available

In cooperation with the hospitals in the recent trend toward colors, a manufacturer of rubber goods has announced the development of water bottles in colors that lend themselves to the well appointed and artistically decorated rooms of the modern institutions that are so radical a departure from the former monotony of institutional white. These water bottles which can be supplied in either the wide neck or modified neck type are made in five shades—geranium red, blue, orchid, wisteria and jade.

Both styles are of one-piece construction, the brass neck

ZEISS

"PANTOPHOS" OPERATING LAMP



ECONOMY OF OPERATION

Once Pantophos is installed, there is absolutely nothing to get out of order. The current consumption of only *one* 150 Watt filament bulb is the only operating cost.

The Zeiss Pantophos eliminates heat, glare and shadows and the emergency light arrangement is an exclusive feature. Write for interesting information on Pantophos, the modern operating lamp.

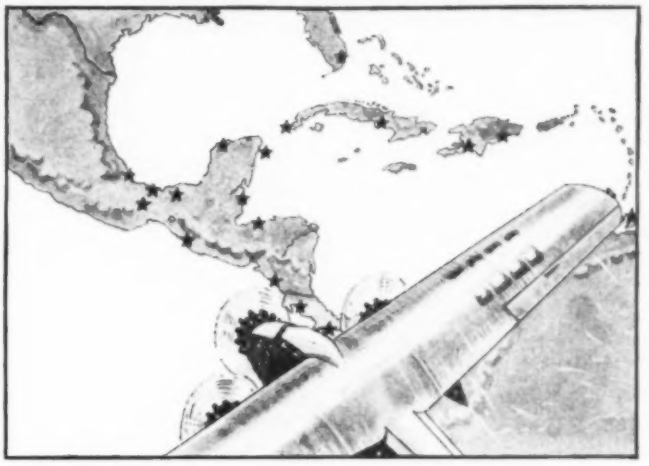
Hook Suspension . . . $503
Band Suspension . . . $530
Trolley and Rail . . . $585

Above prices without bulbs f.o.b. N. Y.

CARL ZEISS, INC.
485 Fifth Ave., New York
728 So. Hill St., Los Angeles

CARL ZEISS JENA

WORLD NEWS STORIES OF THE KOHLER ELECTRIC PLANT—No. 14



. . . expect LINE-SQUALLS near Belize

UP-TO-THE-MINUTE weather reports are a vital safeguard to men on wings over water and wilderness. When a famous flyer circled the long routes of the Pan-American Airways, he kept in constant touch with land by radio. Pilots in regular service here and elsewhere do the same.

Pan-American Airways is the longest air-mail line in the world, stretching nearly 3500 miles across ten countries in the West Indies, Mexico and Central America. Kohler Electric Plants are used at eighteen strategic points on the circuit, to supply the power for operating radio stations. In the United States, hundreds of the same rugged, reliable units light the beacons that guide night-mail flyers. And a hundred more have just been ordered by Uncle Sam.

In modern hospitals . . .

Kohler Electric Plants are now used in numerous hospitals as a safeguard when city service fails. They are connected to start and stop automatically, assuring constant light for operating rooms and other vital points, and constant power for all electric apparatus. Models furnishing either direct or alternating current: 800 watts, 1½, 2, 5 and 10 K. W.

Investigate Kohler Electric Plants. Their operation is efficient, flexible, automatic, absolutely reliable. The coupon below will bring interesting information—without the slightest obligation to you. . . . Kohler Co. *Founded* 1873. Kohler, Wis.—*Shipping Point*, Sheboygan, Wis.—*Branches in principal cities*. . . . Manufacturers of Kohler Plumbing Fixtures.

KOHLER OF KOHLER
ELECTRIC PLANTS

KOHLER CO., Kohler, Wisconsin MH-4-30
Gentlemen:
Please send catalog describing Kohler Electric Plants.

*Name*_____ *Street*_____

*City*_____ *State*_____

*Use in which interested*_____

Children's appetites come back in a hurry

—when you serve this tempting dish

Escalloped Ham
with Cream of Wheat

2 cups cooked Cream of Wheat *2 eggs*
1 cup milk *1 cup ground cooked ham*

Mix Cream of Wheat with milk, slightly beaten eggs, and ham. Pour into greased baking dish, set in hot water, and bake until dish is set. Serve with tomato sauce. Garnish with parsley.

INTERESTS wane . . . dispositions get touchy . . . and appetites often lag, in the children's ward. Youngsters are so impatient to be out.

Nurses know, from long experience, how to arouse such low spirits. They know how speedily children respond to anything new. How quickly they appreciate new "fixings" on their trays. And so dietitians plan special supper treats.

What a cheerful welcome this tempting dish receives when it serves its turn on the child's tray—Escalloped Ham with Cream of Wheat.

Just the right dish for youngsters who are pretty well but not quite ready to go home. Delicious Cream of Wheat skilfully baked with just enough ham to give it a real "meaty" taste. With its creamy thick tomato sauce it tempts the most discouraged appetite.

Dietitians use Cream of Wheat, not only as a simple cereal, but as a base in combinations with other foods. They know how easy it is to digest—that its high carbohydrate content provides the nourishment needed to rebuild systems after illness.

They know, too, that there is never any danger from contamination. Each package of Cream of Wheat is triple-wrapped and triple-sealed.

When youngsters are demanding, and inspirations are slow to come—serve Cream of Wheat dressed up in one of many palatable supper dishes. It will be a welcome treat.

FOR THIRTY-THREE YEARS A STANDARD FOOD ON PHYSICIANS' DIET LISTS

Cream of Wheat

The Cream of Wheat Corporation
Minneapolis Minnesota
In Canada, made by the Cream of Wheat Corporation, Winnipeg

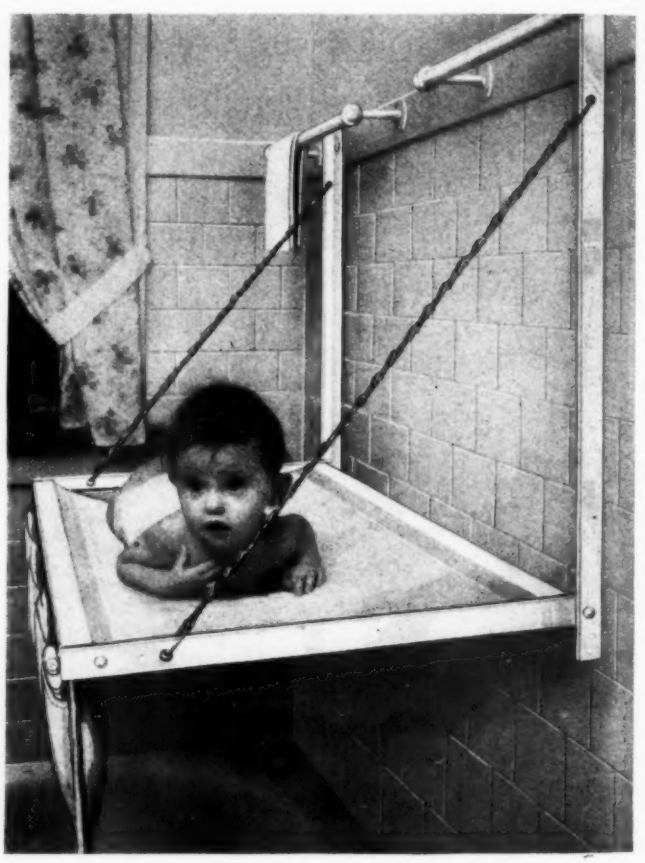
being molded in place in the same operation that the bottle is made, thus forming an integral part of the bag and making unnecessary the use of wire or metal bands, which often corrode and break, to hold the neck in place. These bottles also are fitted with black stopples attached with ring and chain. The black stopple forms an attractive color contrast. It is made of a material that is strong, will not rust and, what is most important, is a poor conductor of heat.

One advantage that is claimed for the colored water bottles is that they eliminate the need for marking the floor, ward or room number on the bottles. The paint usually used for this purpose gives the bag an unsightly appearance and, in addition, does not do the rubber any good. The different colors readily identify the departments to which the bags belong.

Irrigating bags in the same colors, with matched tubing and black polished hard rubber enema and douche points, are also available.

A Baby's Dressing Table That Takes No Floor Space

In many doctors' offices, hospitals, nursing homes and private homes, a new baby table is doing active duty. This newest of baby dressing tables takes no floor space, folding flat against the wall. When it is needed it can

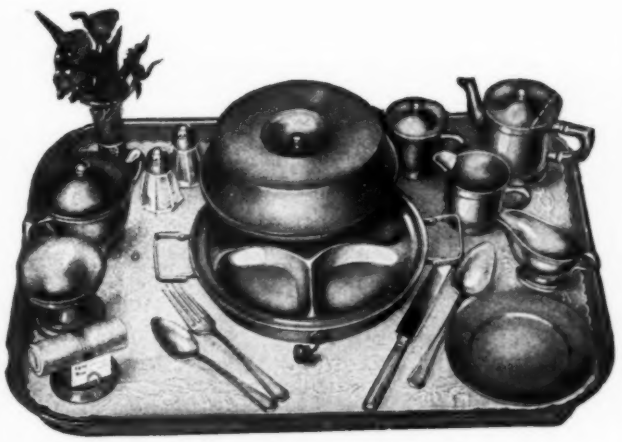


This baby finds the dressing table comfortable and his mother finds it easily accessible.

be swung down in a second. It is adjustable to the height of the mother and may be attached to the wall close to the basin or bath cabinet.

The new table relieves mothers or nurses of the trouble of setting up a dressing table or using the makeshift bed each of the dozen or more times a day that the baby needs dressing and bathing. The table is simply and

THORNER'S
Silver Service



Thorner's Silver Service is made of 18% Nickel Silver with a quadruple silver plate. Wears a lifetime. Replacement through breakage is forever eliminated. It is never affected by wear or polishing.

Illustration features Thorner's Improved Three-Compartment Hot Water Plate. Tea Set is seamless with inside rounded bottom and reinforced band around top. Covered Soup Cup with Silver Soldered Handles. Sherbet Dish, Gravy Boat, Individual Napkin Ring and Tray Marker, Bud Vase, Salt and Pepper Shakers and Superior Grade Sectional Flatware.

THORNER BROTHERS

Importers and Manufacturers of Hospital and Surgical Supplies

135 Fifth Avenue
NEW YORK CITY

THE RIES-LEWIS OPERATING LIGHT

A FEW REASONS FOR CHOOSING THIS LIGHT

1. It throws a clear, shadowless light that is of correct intensity, that eliminates glare and eyestrain and that successfully diffuses shadows that are ordinarily cast by the head or hand of the operator.
2. The emergency features engender a sense of security which dispels all fear of accident through failure of the lighting circuit.
3. It is a pleasure to take care of this light. It requires no attention other than an occasional removal of dust or replacement of a lamp.

   For convenience in cleaning the wired glass protection screen is hinged, giving access to the interior of the lamp without the necessity of removing the entire screen.
4. No glass mirrors or reflectors are used. Everything has been done to make this fixture as durable as possible.

Send for our new descriptive folder

THE MAX WOCHER & SON CO.
Surgical and Hospital Supplies
29-31 W. 6th St. CINCINNATI, O.

FELT

Felt for all hospital uses, and meeting the most exacting requirements, is manufactured at the five American Felt Company's mills. Large stocks assure dependable deliveries.

Leading manufacturers of surgical dressings and supplies use American Felt. They know its high standard of quality. Write our nearest office for prompt and efficient service.

American Felt Company

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Brings ULTRA-VIOLET to BEDRIDDEN Patients

THE Burdick Bedside Unit rolls easily and silently from ward to ward and bed to bed.

Though one of the lowest priced quartz outfits on the market, it has the famous full power, full size Uviarc generator, and other proved Burdick advantages.

This is the ideal portable air-cooled mercury arc lamp. The unit that hastens convalescence by its intensive tonic, regenerative action. The mobile lamp that brings ultra-violet conveniently to isolated cases, private rooms, secluded mental patients, and all who are bedridden.

Write for Portable Unit Literature

THE BURDICK CORPORATION
Dept. 110, MILTON, WIS.

PORTABLE!
The Burdick Air-Cooled Quartz Lamp Bedside Unit

THE BURDICK CORPORATION
MILTON, WISCONSIN
LARGEST EXCLUSIVE MANUFACTURERS OF LIGHT THERAPY EQUIPMENT IN THE WORLD

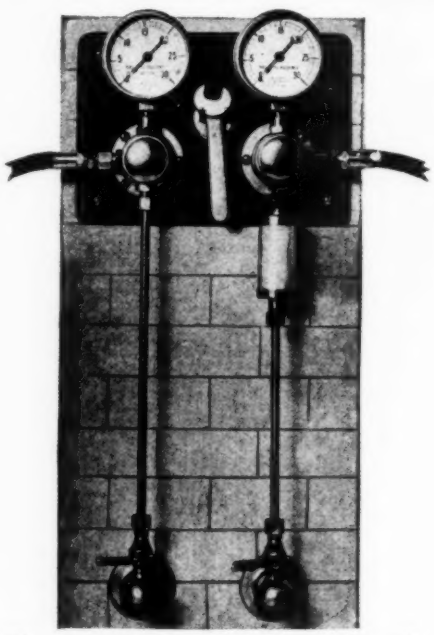
strongly built. The canvas of which the table is made measures 36 inches in length and 19 inches in width, and is large enough for any baby up to two years old or more. The frame is of rigid angle steel, which makes it safe and steady. It may be enameled in white, pink or blue. The canvas is fastened by a special "tube" method which allows it to be slipped off easily for washing. Large pockets for the baby's brush, pins, gauze, powder and other necessary toilet articles hang along the front.

The table is easy to install. One screw in each end of the frame holds it firm and solid. It cannot mar the wall, and can be taken down and moved as easily as it is installed.

New Operating Room Equipment of Interest to Superintendents

A stand with a pressure jar to be used in the giving of an anesthetic and a stand with a vacuum jar for drainage, both connected with the control board illustrated here, were recently placed on the market. The pressure jar is connected to the right side of the control board and the vacuum jar is connected to the left side.

The stands for carrying the pressure jar and the vacuum jar have been designed to be used in connection with the control board made by the same manufacturers.



The pressure jar is connected to the right of this control board and the vacuum jar to the left.

The pressure jar that is used in administering the anesthetic to the patient is fitted with a pan for holding hot water. Its use effects a saving in ether and produces a more liberal supply of dry gas, according to the manufacturers. The jar fittings enable the assistant to cut the gas on and off at will without leaving the patient. The stopper is held in by spring clamps and cannot blow out.

Like the pressure jar, the vacuum jar for drainage is so constructed that the assistant, without taking a step, may cut the service on and off as desired. Naturally this prevents a great waste of vacuum.

In both stands the top pan is easily removed, thus allowing the jars to be handled without difficulty. They are both light and strong.

"Do you see what happened, Johnny?"

The apparatus illustrated is the famous American TripleX Unit, a highly efficient self-contained X-Ray plant for Potter-Bucky Radiography and Vertical Fluoroscopy.

Johnny was playing baseball and hurt his arm. He is a good sport. Never a whimper when you applied splint and bandages. He gritted his teeth and tried a grin. Not a very good grin, maybe, but he tried.

But tomorrow he has to see you again—and the next day—and the next. Good sport or not, natural restlessness of the child does not make things easy. He chafes at an arm in a sling! But take him into your confidence, explain what happened, what you are doing, even why, and instantly you have caught his interest and received his cooperation. The irksome injury suddenly becomes a fascinating subject of conversation.

X-ray, because of the tangible proof it produces, appeals tremendously to Johnny. And not to him alone. His parents will appreciate more than ever the exact, scientific care you applied to the management of this case. So put your X-ray equipment to work, not in its diagnostic and therapeutic sense only, but in the peculiar ability it possesses of creating confidence and full recognition of your professional skill.

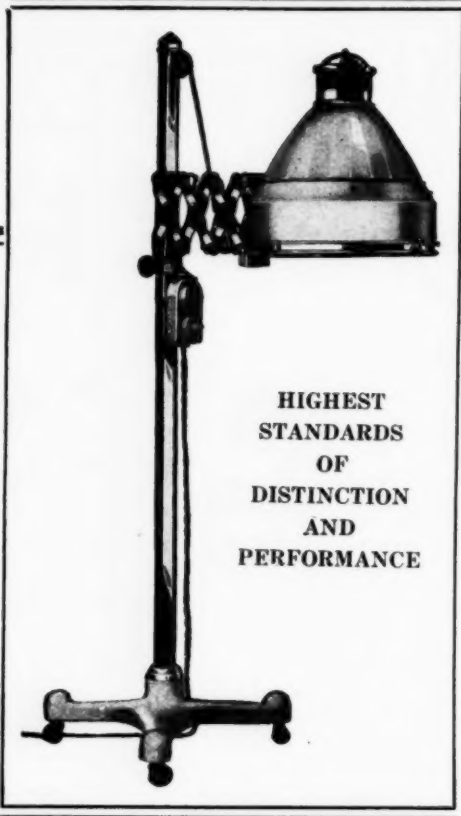
Should you be without adequate X-ray Apparatus at present, because of the impression that it entails a great investment, demands too much floor space or requires specialized skill, we urge you to mail the coupon below. The literature we shall send you will—we believe—clearly and convincingly answer all these questions.

AMERICAN X-RAY CORPORATION

American X-Ray Corp., 709 W. Lake St., Chicago, Ill.
Gentlemen: I am interested in X-ray Equipment suitable for Radiography ☐ and Fluoroscopy ☐ and Therapy ☐. You may send me literature, without obligation, of course.

Dr._____ City_____

Address_____ State_____



HIGHEST STANDARDS OF DISTINCTION AND PERFORMANCE

Britesun Major

Radiant and Infra-red Lamp

A masterpiece in design and sturdy construction. Exceptionally fine quality materials and excellent workmanship distinguish the Britesun Major Lamp and lend to its individuality.

Special counter-balance design and flexible arm permits of adjustment to any desirable or necessary position with ease, precision and certainty.

Extensive and reliable clinical evidence attest to its great value in colds, lumbago, neuritis, rheumatism, sprains, congestions, swollen joints, and other conditions.

Is supplied with either 1500 watt bulb or 1250 watt indestructible infra-red generator or a combination of both.

BRITESUN, INC.

ULTRA VIOLET - RADIANT THERAPY - INFRA RED

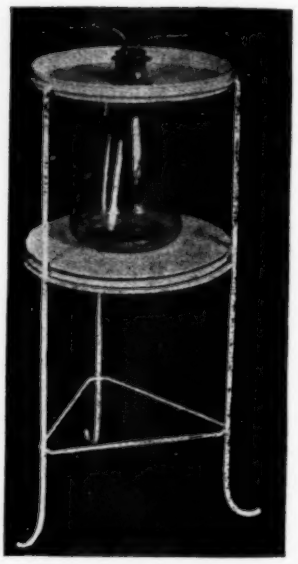
3735-39 Belmont Avenue, Chicago

Please send descriptive literature on this and other Britesun Lamps.

Name .....

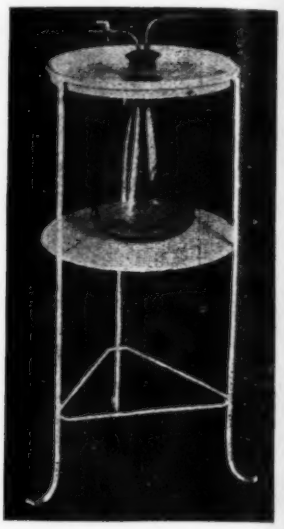
Address .....

M. H.



The pressure jar, above, has a special pan for hot water.

With the vacuum jar, below, any desired vacuum may be obtained.



The control board is intended to be mounted on the wall in each operating room and at other places where air under pressure and vacuum are employed. It is connected with the service pipe lines in the building. Its use makes it possible for the surgeon or laboratory worker to obtain any desired energy that he may need for any particular purpose.

The right side controls pressure and the left side controls vacuum. When the knob just under the gauge is turned to the right, the pressure or vacuum is raised; when it is turned to the left, the pressure or vacuum is lowered. The gauges indicate the pressure, and all guesswork is eliminated. Any desired degree of pressure or vacuum may be secured, from zero to the maximum carried by the system—fifteen pounds of pressure or twenty inches of vacuum.

The manufacturers give assurance that "these sets produce a harmonious installation that will appeal to the surgeon as well as to the superintendent of the hospital."

A Self-Regulating Clock System That Serves an Entire Hospital

A self-regulating, weight driven, mercurial, compensating clock system is in use in the new General Hospital at the University of Iowa. This includes a master clock and twenty-three metal, round, 12-inch secondary clocks. The master clock is in the main lobby. The secondary clocks are distributed throughout the building. The secondary clocks in the corridors are the double faced type, installed on brackets, and the wall type clocks are used in operating rooms and other rooms that require a short range of vision. Alternating current supplies the power for the system, thus eliminating the use of batteries. The clock system is equipped with an accumulator which stores up impulses during the period in which there may be a power shutdown, and automatically restores the entire system in perfect synchronism with the master clock, immediately upon power resumption. This feature also provides automatic correction service.